CURRÍCULUM VÍTAE NORMALIZADO

Ignacio Arganda Carreras

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GOBIERNO DE ESPAÑA
MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

FECYT INNOVACIÓN

Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

Ignacio Arganda Carreras is a European PhD in Computer Engineering and Telecommunications by the Autonomous University of Madrid (Extraordinary Doctorate Award, 2009) and holds a BSc in Computer Engineering from the same university. He took postdoctoral studies at the department of Brain and Cognitive Sciences of the Massachusetts Institute of Technology (MIT) from 2009 to 2013 and at the Jean-Pierre Bourgin Institute of the Institut National de la Recherche Agronomique (INRA), Versailles, from 2013 to 2015.
He conducted research stays at the Lawrence Berkeley National Laboratory in Berkeley (California, 2002-2004), the Centre for Machine Perception of the Technical University of Prague (2005), and the Applied Medical Research Centre of the University of Navarra in Pamplona (2006) during his doctorate studies. Dr. Arganda also worked as a consultant for the Max Planck Institute of Cellular Biology and Genetics in Dresden (2009) and the Institute of Neuroinformatics in Zurich (2009). He was an Ikerbasque Research Fellow at the department of Computer Science and Artificial Intelligence of the University of the Basque Country (UPV/EHU) from September 2015 to August 2020, and since September 2020, he holds a permanent position in the same department as an Ikerbasque Research Associate. Additionally, he is associated with the Donostia International Physics Center (DIPC) and the Biofisika Institute (Leioa, Spain).

Dr. Arganda is an accomplished researcher with extensive experience in image processing and computer vision, spanning various applications such as biomedical image analysis, microscopy, facial image analysis, and autonomous car technology. His current research interests are focused on deep learning-based image segmentation, restoration, super-resolution, object detection, and tracking. Dr. Arganda has a prolific publication record, with more than 50 peer-reviewed journal articles in renowned publications such as Bioinformatics, Nature Methods, Nature Communications, Pattern Recognition, and IEEE Transactions on Medical Imaging, among others. He has also presented over 30 international conference papers. Additionally, Dr. Arganda is one of the co-founders of Fiji, an open-source image processing package that is widely used by the bioimage analysis community.

As of 2025, Dr. Arganda has an H-index of 31 according to Google Scholar and has accumulated more than 72,000 citations. Since 2015, he has supervised over 20 master's theses, three PhD thesis, and is currently supervising the following PhD students:
* Lenka Backová (full-time PhD) is working on a thesis titled "Deep Learning-Based Image Analysis and Cell Behavior Prediction of Multicellular Biological Systems" and is expected to defend by the end of 2025.

* Aitor Gonzalez-Marfil (full-time PhD) is working on a thesis titled "Deep Self-Supervised Learning methods for biomedical image analysis" and is expected to defend by the end of 2026.
* Francisco Javier Iriarte-Satrustegui (part-time PhD, industrial) is working on a thesis titled "A Microservice-Based Approach for Efficient and Explainable AI Sensing on Multi-Sensored Robots" and is expected to defend by the end of 2027.
* Xabier Lekunberri Mezo (full-time PhD, industrial) is working on a thesis titled "Image analysis, big data and artificial intelligence to improve fisheries management" and is expected to defend by the end of 2025.
* Gloria Vázquez Sebrango (full-time PhD, industrial) is working on a thesis titled "Artificial Intelligence for the autraumatic reversibility of implant treatments" and is expected to defend by the end of 2025.

As of 2025, Dr. Arganda has an H-index of 31 (Google Scholar) and has accumulated over 72,000 citations. He has supervised more than 20 master's theses, three PhD theses, and is currently mentoring five PhD students. A young corresponding member of Jakiunde, the Basque Academy of Sciences, Arts, and Letters, since 2016, Dr. Arganda is also deeply committed to science communication. He has participated in various outreach programs on local radio and television, including Lau Haizetara (Bizkaia Irratia), La Mecánica del Caracol and Faktoria (EiTB radio), and Teknopolis (EiTB TV). One of his latest publications (Carnevali et al., Nature Machine Intelligence, 2024) had a great impact, with dozens of articles and interviews in the local and national news.

In recognition of his research impact, Dr. Arganda was included in Stanford University's 'Ranking of the World Scientists: World's Top 2% Scientists' in 2022, 2023, and 2024, which highlights influential scientists based on the citation impact of their publications (DOI: 10.17632/btchxktzyw.7).

Leadership Merits

Brief presentation of the merits related to leadership activities of special relevance.

General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

Google Scholar (14/01/2025): 72891 citations.

Ignacio Arganda Carreras

Surname(s): **Arganda Carreras**
Name: **Ignacio**
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ResearcherID: **L-4605-2014**
Contact aut. region/reg.: **Basque Country**
Personal web page: **https://www.ikerbasque.net/es/ignacio-arganda-carreras**

Current professional situation

Employing entity: FUNDACION IKERBASQUE/IKERBASQUE FUNDAZIOA
Department: Computer Science and Artificial Intelligence, University of the Basque Country (UPV/EHU)
Professional category: Ikerbasque Associate Professor
Start date: 01/09/2020
Type of contract: Permanent employment contract **Dedication regime:** Full time
Primary (UNESCO code): 330400 - Computer technology
Secondary (UNESCO code): 249000 - Neurosciences
Identify key words: Computer applications; Software

Previous positions and activities

	Employing entity	Professional category	Start date
1	FUNDACION IKERBASQUE/IKERBASQUE FUNDAZIOA	Ikerbasque Research Fellow	01/09/2015
2	Institut National de la Recherche Agronomique	Postdoctoral research associate	13/05/2013
3	Massachusetts Institute of Technology	Postdoctoral research associate	16/11/2009
4	Max Planck Institute of Molecular Cell Biology and Genetics	Consultant	07/10/2009
5	University of Zurich (UZH) / Swiss Federation of Technology (ETH)	Research technician	01/05/2009

1 **Employing entity:** FUNDACION IKERBASQUE/IKERBASQUE FUNDAZIOA
Professional category: Ikerbasque Research Fellow
Start-End date: 01/09/2015 - 31/08/2020 **Duration:** 5 years
Type of contract: Permanent employment contract

2 **Employing entity:** Institut National de la Recherche Agronomique **Type of entity:** R&D Centre
Professional category: Postdoctoral research associate

Start-End date: 13/05/2013 - 31/08/2015 **Duration:** 2 years - 4 months

3 **Employing entity:** Massachusetts Institute of Technology **Type of entity:** University
Professional category: Postdoctoral research associate
Start-End date: 16/11/2009 - 30/04/2013 **Duration:** 3 years - 6 months

4 **Employing entity:** Max Planck Institute of Molecular Cell Biology and Genetics
Department: Image processing Facility
City employing entity: Dresden, Germany
Professional category: Consultant
Start-End date: 07/10/2009 - 07/11/2009 **Duration:** 1 month

5 **Employing entity:** University of Zurich (UZH) / Swiss Federation of Technology (ETH) **Type of entity:** University Research Institute
Department: Institute of Neuroinformatics
City employing entity: Zurich, Switzerland
Professional category: Research technician
Start-End date: 01/05/2009 - 30/09/2009 **Duration:** 5 months

Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

University degree: Higher degree
Name of qualification: Graduado o Graduada en Ingeniería Informática
Degree awarding entity: Universidad Autónoma de Madrid **Type of entity:** University
Date of qualification: 29/07/2002

Doctorates

Doctorate programme: Programa Oficial de Doctorado en Ingeniería Informática y Telecomunicación
Degree awarding entity: Universidad Autónoma de Madrid **Type of entity:** University
Date of degree: 26/06/2009

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
German	A2	A2	A2	A2	A2
Basque	C1	C1	C1	C1	C1
English	C1	C1	C1	C1	C1
French	C1	C1	C1	C1	C1
Spanish	C2	C2	C2	C2	C2

Teaching experience

General teaching experience

1 **Name of the course:** Computer Vision
University degree: Máster Universitario en Ingeniería Computacional y Sistemas Inteligentes
Start date: 29/01/2024 **End date:** 08/02/2024
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

2 **Name of the course:** Introducción al Deep Learning
University degree: Máster Universitario en Ingeniería Computacional y Sistemas Inteligentes
Start date: 06/11/2023 **End date:** 24/11/2023

Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

3 **Name of the course:** Introducción al Deep Learning
University degree: Máster Universitario en Ingeniería Computacional y Sistemas Inteligentes
Start date: 07/11/2022 **End date:** 25/11/2022
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

4 **Name of the course:** Computer Vision
University degree: Máster Universitario en Ingeniería Computacional y Sistemas Inteligentes
Start date: 24/01/2022 **End date:** 10/02/2022
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

5 **Name of the course:** Natural Language Processing and Research: Documentation and Communication
University degree: Máster Universitario en Análisis y Procesamiento del Lenguaje
Start date: 17/03/2020 **End date:** 16/04/2021
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

6 **Name of the course:** Computer Vision
University degree: Máster Universitario en Ingeniería Computacional y Sistemas Inteligentes
Start date: 30/11/2020 **End date:** 17/12/2020
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

7 **Name of the course:** Natural Language Processing and Research: Documentation and Communication
University degree: Máster Universitario en Análisis y Procesamiento del Lenguaje
Start date: 23/01/2020 **End date:** 17/02/2020
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

8 **Name of the course:** Computer Vision
University degree: Máster Universitario en Ingeniería Computacional y Sistemas Inteligentes
Start date: 02/12/2019 **End date:** 19/12/2019
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

9 **Name of the course:** Computer Vision
University degree: Máster Universitario en Ingeniería Computacional y Sistemas Inteligentes
Start date: 26/11/2018 **End date:** 13/12/2018
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

10 **Name of the course:** Computer Vision
University degree: Máster Universitario en Ingeniería Computacional y Sistemas Inteligentes
Start date: 27/11/2017 **End date:** 19/12/2017
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

11 **Name of the course:** Computer Vision
University degree: Máster Universitario en Ingeniería Computacional y Sistemas Inteligentes
Start date: 29/11/2016 **End date:** 20/12/2016
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Faculty, institute or centre: Facultad de Informática

12 **Name of the course:** Metodología y Tecnología de la Programación I
University degree: Graduado o Graduada en Ingeniería en Informática
Start date: 01/08/2007 **End date:** 01/01/2008
Entity: Centro de Estudios Universitarios CEU SAN PABLO **Type of entity:** University Centres and Structures and Associated Bodies
Faculty, institute or centre: Escuela Politecnica Superior

13 **Name of the course:** Laboratorio de Estructura de Datos y de la Informacion 2
University degree: Licenciado en Informática
Start date: 10/2006 **End date:** 02/2007
Entity: Universidad Autónoma de Madrid **Type of entity:** University
Faculty, institute or centre: Escuela Politécnica Superior

14 **Name of the course:** Laboratorio de Estructura de Datos y de la Informacion 1
University degree: Licenciado en Informática
Start date: 02/2003 **End date:** 06/2003
Entity: Universidad Autónoma de Madrid **Type of entity:** University
Faculty, institute or centre: Escuela Politécnica Superior

Experience supervising doctoral thesis and/or final year projects

1 **Project title:** Deep Learning for Bioimage Analysis: novel user and developer-oriented approaches
Type of project: Doctoral thesis
Co-director of thesis: Arrate Muñoz Barrutia
Entity: Universidad del País Vasco **Type of entity:** University
Student: Daniel Franco Barranco
Obtained qualification: Sobresaliente Cum Laude
Identify key words: Information technology and adata processing
Date of reading: 21/06/2024

2 **Project title:** Validación de la detección de objetos 3D basada en nubes de puntos para la conducción autónoma mediante motores de simulación
Type of project: Master thesis
Co-director of thesis: Nerea Aranjuelo Ansa
Type of entity: University

Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea
Student: Aitor Iglesias Hernández
Obtained qualification: 9.5
Date of reading: 21/09/2023

3 **Project title:** Optimizing Deep Neural Network Deployment For Intelligent Security Video Analytics
Type of project: Doctoral thesis
Co-director of thesis: Luis Unzueta
Entity: Universidad del País Vasco **Type of entity:** University
Student: Unai Elordi Hidalgo
Obtained qualification: Sobresaliente Cum Laude
Identify key words: Information technology and adata processing
Date of reading: 08/09/2023

4 **Project title:** Data-centric Design and Training of Deep Neural Networks with Multiple Data Modalities for Vision-based Perception Systems
Type of project: Doctoral thesis
Co-director of thesis: Luis Unzueta
Entity: Universidad del País Vasco **Type of entity:** University
Student: Nerea Aranjuelo Ansa
Obtained qualification: Sobresaliente Cum Laude
Identify key words: Information technology and adata processing
Date of reading: 12/06/2023

5 **Project title:** Deep learning single image super-resolution in microscopy data: distortion error vs perceptual quality
Type of project: Master thesis
Co-director of thesis: Estibaliz Gomez de Mariscal
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Iván Hidalgo Cenalmor
Obtained qualification: 10
Date of reading: 18/01/2023

6 **Project title:** Aplicación de Inteligencia Artificial en videos Time-Lapse para la evaluación temprana de embriones
Type of project: Master thesis
Co-director of thesis: Nagore Barrena Orueechebarria
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Beatriz Martínez López
Obtained qualification: 8.8
Date of reading: 29/09/2022

7 **Project title:** Transformer-based architecture for 2D semantic segmentation of mitochondria
Type of project: Master thesis
Co-director of thesis: Fadi Dornaika
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Aitor González Marfil
Obtained qualification: 10
Date of reading: 29/09/2022

8 **Project title:** Identificación Automatica de Etiquetas de Productos mediante IA
Type of project: End of course project
Co-director of thesis: Nagore Barrena Orueechebarria
Entity: Universidad del País Vasco **Type of entity:** University
Student: Ibon Pino Gomez
Obtained qualification: 9.3
Date of reading: 12/07/2022

9 **Project title:** User friendly image denoising based on deep learning
Type of project: End of course project
Co-director of thesis: Nagore Barrena Orueechebarria
Entity: Universidad del País Vasco **Type of entity:** University
Student: Urtzi Beorlegui Pascal
Obtained qualification: 9
Date of reading: 12/07/2022

10 **Project title:** Evaluación y desarrollo de redes neuronales profundas para super-resolución en imágenes de microscopía y astrofísica
Type of project: Master thesis
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Pablo Alonso Pérez
Obtained qualification: 10
Date of reading: 24/09/2021

11 **Project title:** Diseño y desarrollo de Mask R-CNN para DeepImageJ
Type of project: End of course project
Entity: Universidad del País Vasco **Type of entity:** University
Student: Baterdene Batmunkh
Obtained qualification: 7
Date of reading: 16/09/2021

12 **Project title:** Easy-to-use deep learning based super-resolution in microscopy images
Type of project: End of course project
Co-director of thesis: Roberto Santana Hermida
Entity: Universidad del País Vasco **Type of entity:** University
Student: Ainhoa Serrano Guerrero
Obtained qualification: 10
Date of reading: 14/09/2021
Quality recognition: Yes

13 **Project title:** Implementación en Android de detector de elementos de la red el eléctrica utilizando técnicas de Deep Learning
Type of project: Master thesis
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Igor García Atutxa
Obtained qualification: 5
Date of reading: 15/07/2021

14 **Project title:** Métodos de aprendizaje profundo para la súper resolución y segmentación semántica de imágenes
Type of project: End of course project
Co-director of thesis: Gorka Akzune Galparsoro
Entity: Universidad del País Vasco **Type of entity:** University
Student: Aitor Gonzalez Marfil
Obtained qualification: 10
Date of reading: 06/07/2021
Quality recognition: Yes

15 **Project title:** Acercando la detección de objetos basada en aprendizaje profundo en imágenes de microscopía a usuarios inexpertos
Type of project: End of course project
Entity: Universidad del País Vasco **Type of entity:** University
Student: Erlantz Calvo Carrillo
Obtained qualification: 9.8
Date of reading: 28/06/2021
Quality recognition: Yes

16 **Project title:** Deep Learning for Pulmonary Hypertension Characterization from 4D magnetic resonance images
Type of project: Master thesis
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Maialen Stephens Txurio
Obtained qualification: 9.5
Date of reading: 28/09/2020

17 **Project title:** Detection of driver distraction using deep learning
Type of project: Master thesis
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Paola Natalia Cañas Rodríguez
Obtained qualification: 9.5
Date of reading: 27/09/2020

18 **Project title:** Prueba de concepto de la aplicación del aprendizaje profundo a la morfogénesis
Type of project: Master thesis
Co-director of thesis: Gorka Azkune Galparsoro
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Imanol Echeverria Franco
Obtained qualification: 8
Date of reading: 22/09/2020

19 **Project title:** Development of a deep learning system for hummed melody identification for BertsoBot
Type of project: Master thesis
Co-director of thesis: Elena Lazkano Ortega
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Asier Alkorta Zabaleta
Obtained qualification: 8.5
Date of reading: 15/09/2020

20 **Project title:** Aprendizaje profundo para super-resolución de imágenes de microscopía electrónica
Type of project: End of course project
Co-director of thesis: Gorka Akzune Galparsoro
Entity: Universidad del País Vasco **Type of entity:** University
Student: Andoni Rodriguez Herrero
Obtained qualification: 9.5
Date of reading: 09/06/2020

21 **Project title:** Inferring spatial relations from textual descriptions of images
Type of project: Master thesis
Co-director of thesis: Aitor Soroa Echave
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Aitzol Elu Etxano
Obtained qualification: 10
Date of reading: 24/02/2020

22 **Project title:** Estimación de riesgo de colisión para aplicaciones de conducción autónoma
Type of project: Master thesis
Co-director of thesis: Gorka Azkune Galparsoro; Gorka Velez Isasmendi
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Gonzalo Pierola Azanza
Obtained qualification: 7
Date of reading: 27/09/2019

23 **Project title:** Portable system for autonomous management of transparent wood coatings
Type of project: Master thesis
Co-director of thesis: Gorka Azkune Galparsoro; Gorka Velez Isasmendi
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Eneritz Etxaniz Dominguez
Obtained qualification: 8.5
Date of reading: 27/09/2019

24 **Project title:** Segmentacion automatica de procesos neuronales en microscopía electrónica mediante técnicas de aprendizaje profundo
Type of project: Master thesis
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Tiago Manuel Esteves Sieiro
Obtained qualification: 8.5
Date of reading: 27/09/2019

25 **Project title:** Detección de mitocondrias en células mediante Deep Learning
Type of project: Master thesis
Co-director of thesis: Arrate Muñoz Barrutia
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea
Student: Daniel Franco Barranco
Obtained qualification: 10

Date of reading: 24/09/2019

26 **Project title:** Reproyección multi-vista de objetos para vehículos autónomos
Type of project: Master thesis
Co-director of thesis: Gorka Azkune Galparsoro
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea
Student: Mikel Garcia Fonseca
Obtained qualification: 9
Date of reading: 24/09/2019

27 **Project title:** Towards smart video surveillance: static object detection in complex environments
Type of project: Master thesis
Co-director of thesis: Gorka Azkune Galparsoro
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea
Student: Eduardo Montero Iraola
Obtained qualification: 8
Date of reading: 24/09/2019

28 **Project title:** Detección de objetos basada en Deep Learning y aplicada a vehículos autónomos
Type of project: Master thesis
Co-director of thesis: Javier Yebes Torres
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Ignacio Arriola Oregui
Obtained qualification: 10
Date of reading: 27/09/2018

29 **Project title:** Driver Drowsiness Detection in Facial Images
Type of project: Master thesis
Co-director of thesis: Fadi Dornaika
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Jorge Reta Cárcamo
Obtained qualification: 9.75
Date of reading: 26/09/2018

30 **Project title:** Reconocimiento de señales de tráfico verticales mediante técnicas de visión artificial
Type of project: Master thesis
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Olatz Iparraguirre Gil
Obtained qualification: 9.5
Date of reading: 12/09/2018

31 **Project title:** Trainable Superpixel segmentation
Type of project: End of course project
Co-director of thesis: Basilio Sierra
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea
Student: Josu Salinas Colina
Obtained qualification: 10
Date of reading: 11/07/2018

Quality recognition: Yes

32 **Project title:** Statistical Shiny App that provides a complete performance evaluation of the MicroINR System
Type of project: Master thesis
Co-director of thesis: Itziar Irigoien
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Imanol Zubizarreta
Obtained qualification: 10
Date of reading: 29/06/2018

33 **Project title:** Comparative Analysis of Facial Expressions using Hand-crafted and Deep Face Features
Type of project: Master thesis
Co-director of thesis: Fadi Dornaika
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Leire Roa Barco
Obtained qualification: 8.5
Date of reading: 20/12/2017

34 **Project title:** Face Beauty Analysis via Manifold Based Semi-Supervised Learning
Type of project: Master thesis
Co-director of thesis: Fadi Dornaika
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Anne Elorza Deias
Obtained qualification: 9
Date of reading: 27/09/2017

35 **Project title:** Prototipo CAD de segmentación automática de cáncer de pulmón en imágenes histopatológicas TMA
Type of project: Master thesis
Co-director of thesis: Carlos Ortiz de Solórzano Aurusa
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea
Student: Jefferson Jair Arcos Erazo
Obtained qualification: 9
Date of reading: 31/07/2017

36 **Project title:** Image-based Family Verification in the wild
Type of project: Master thesis
Co-director of thesis: Fadi Dornaika
Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea **Type of entity:** University
Student: Oscar Serradilla Casado
Obtained qualification: 10
Date of reading: 26/07/2017

37 **Project title:** Comparative Study of Human Age Estimation Based on Hand-crafted and Deep Face Features
Type of project: Master thesis
Co-director of thesis: Fadi Dornaika
Type of entity: University

Entity: Universidad del País Vasco / Euskal Herriko Unibertsitatea
Student: Carlos Belver Mielgo
Obtained qualification: 9
Date of reading: 30/09/2016

Other teaching merits

Healthcare experience

Other activities/achievements not included above

1 **Other relevant activities:** Instructor at the Introduction to Neuroinformatics course, Neuroinformatics 2015
Entity where project took place: Cairns, Australia **Type of entity:** Foundation
End date: 18/08/2015

2 **Other relevant activities:** Instructor at the Introduction to Neuroinformatics course, Neuroinformatics 2014
Entity where project took place: Leiden University, Leiden, Netherlands **Type of entity:** University
End date: 22/08/2014

3 **Other relevant activities:** Instructor at the Introduction to Neuroinformatics course, Neuroinformatics 2013
Entity where project took place: Karolinska Institute, Stockholm, Sweden
End date: 24/08/2013

4 **Other relevant activities:** Invited speaker to Janelia EM Connectomics workshop
Entity where project took place: HHMI's Janelia Farm Research Campus **Type of entity:** R&D Centre
City of entity: Ashburn, VA, United States of America
End date: 19/10/2012

5 **Other relevant activities:** Instructor at the Introduction to Neuroinformatics course, Neuroinformatics 2012
Entity where project took place: Technische Universität München **Type of entity:** University
End date: 07/09/2012

6 **Other relevant activities:** Invited speaker
Entity where project took place: Institute of bioengineering of Catalonia, IBEC **Type of entity:** R&D Centre
City of entity: Barcelona, Catalonia, Spain
End date: 04/05/2012

7 **Other relevant activities:** Organization of ISBI challenge: "Segmentation of neuronal structures in EM stacks"
Entity where project took place: International Symposium on Biomedical Imaging 2012 **Type of entity:** Associations and Groups
City of entity: Barcelona, Catalonia, Spain
End date: 02/05/2012

8 **Other relevant activities:** Invited speaker to Janelia image processing seminar
Entity where project took place: HHMI's Janelia Farm Research Campus **Type of entity:** R&D Centre
City of entity: Ashburn, VA, United States of America
End date: 03/12/2010

9 **Other relevant activities:** Invited speaker at Fiji hackathon
Entity where project took place: Laboratory for Optical and Computational Instrumentation
City of entity: Madison, WI, United States of America
End date: 2010

10 **Other relevant activities:** Tutor at the Image Processing School in Neuroinformatics 2009
Entity where project took place: 2nd INCF Congress of Neuroinformatics **Type of entity:** Associations and Groups
End date: 12/09/2009

11 **Other relevant activities:** Invited speaker at Fiji hackathon
Entity where project took place: European Molecular Biology Laboratory **Type of entity:** R&D Centre
City of entity: Heidelberg, Germany
End date: 2009

12 **Other relevant activities:** Invited speaker at Fiji hackathon
Entity where project took place: INI Institute of Neuroinformatics
City of entity: Zurich, Switzerland
End date: 2009

13 **Other relevant activities:** Invited speaker at Fiji hackathon
Entity where project took place: Max Planck Institute of Molecular Cell Biology and Genetics (MPI-CBG) **Type of entity:** R&D Centre
End date: 2009

14 **Other relevant activities:** Invited speaker at Janelia Farm Fiji hackathon
Entity where project took place: HHMI's Janelia Farm Research Campus **Type of entity:** R&D Centre
End date: 2008

Scientific and technological experience

Research and development groups/teams

Name of the group: Fiji
Aims of the group: Open-source platform for biomedical software
Type of collaboration: Co-authorship of projects and their development
Start date: 2008

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

1 **Name of the project:** Computer Vision Approaches in Low Annotation Regimes: biomedical and facial image analysis (CARLA)
Identify key words: Information technology and adata processing
Type of project: Basic research (including archaeological digs, etc) **Geographical area:** National
Degree of contribution: Coordinator of total project, network or consortium
Entity where project took place: Universidad del País Vasco **Type of entity:** University
City of entity: Donostia-San Sebastián, Basque Country, Spain
Name principal investigator (PI, Co-PI....): Ignacio Arganda Carreras; Fadi Dornaika
Nº of researchers: 4
Funding entity or bodies:
Ministerio de Ciencia e Innovación **Type of entity:** Public ministry

Type of participation: Principal investigator
Name of the programme: Proyectos de Generación de Conocimiento
Code according to the funding entity: PID2021-126701OB-I00
Start-End date: 01/09/2022 - 31/08/2025 **Duration:** 3 years
Participating entity/entities: Universidad del País Vasco
Total amount: 101.640 €

2 **Name of the project:** FuturAAL: Novel mechanisms for situational awareness in non-controlled environments for the future AAL
Entity where project took place: Universidad del País Vasco **Type of entity:** University
City of entity: Donostia-San Sebastián, Basque Country, Spain
Name principal investigator (PI, Co-PI....): Ignacio Arganda Carreras; Fadi Dornaika
Nº of researchers: 8
Funding entity or bodies:
Ministerio de Ciencia e Innovación. Universidades **Type of entity:** Ministry
City funding entity: Madrid, Community of Madrid, Spain

Type of participation: Principal investigator
Start-End date: 01/01/2019 - 31/12/2021

Total amount: 43.318 €

3 **Name of the project:** Desarrollo de métodos de aprendizaje profundo auto-supervisado para la segmentación de imágenes biomédicas
Degree of contribution: Coordinator of total project, network or consortium
Entity where project took place: Universidad del País Vasco **Type of entity:** University
Name principal investigator (PI, Co-PI....): Ignacio Arganda Carreras
Nº of researchers: 1
Funding entity or bodies:
FUNDACION BANCO BILBAO-VIZCAYA

Type of participation: Principal investigator
Start-End date: 30/10/2020 - 30/04/2021
Total amount: 40.000 €

4 **Name of the project:** Nuevos mecanismos de reconocimiento de situaciones en entornos no controlados para asistencia a personas dependientes
Entity where project took place: Universidad del País Vasco **Type of entity:** University
City of entity: San Sebastián, Basque Country, Spain
Name principal investigator (PI, Co-PI....): Ignacio Arganda Carreras; Gorka Azkune
Nº of researchers: 2
Funding entity or bodies:
Diputación Foral de Gipuzkoa **Type of entity:** Public
City funding entity: Donostia San Sebastián, Basque Country, Spain

Start-End date: 01/01/2019 - 31/12/2019
Total amount: 2.500 €

5 **Name of the project:** TEFOR (Transgenesis for functional studies in model organisms)
Degree of contribution: Researcher
Entity where project took place: INRA Versailles
City of entity: Versailles, Île de France, France
Name principal investigator (PI, Co-PI....): Joly Jean-Stéphane; Andrey Philippe
Funding entity or bodies:
ANR, Programme “Investissements d’Avenir” **Type of entity:** Administrative Body of the National Health System

Start-End date: 01/07/2012 - 30/12/2019
Total amount: 12.500.000 €

6 **Name of the project:** Descifrando la estructura y la función de las protrusions celulares en la migración tridimensional
Type of project: Basic research (including archaeological digs, etc)
Entity where project took place: Universidad Carlos III de Madrid **Type of entity:** University
City of entity: Getafe, Community of Madrid, Spain
Name principal investigator (PI, Co-PI....): Arrate Muñoz Barrutia; Denis Wirtz; Ignacio Arganda Carreras; Javier Pascau González-Garzón; María Victoria Gómez Gaviro; Eugenio Marinetto Carillo; Alejandro Suñé Auyón
Nº of researchers: 7
Funding entity or bodies:

Ministerio de Economía y Competitividad **Type of entity:** State agency
City funding entity: Madrid, Community of Madrid, Spain

Type of participation: Team member
Start-End date: 01/01/2016 - 31/12/2016 **Duration:** 1 year
Participating entity/entities: FUNDACION IKERBASQUE/IKERBASQUE FUNDAZIOA
Total amount: 40.000 €

7 **Name of the project:** Hacia la proteomica visual: herramientas para el calculo y manejo de estructuras tridimensionales
Entity where project took place: Departamento de Informatica de la Universidad Autonoma de Madrid **Type of entity:** University
City of entity: Cantoblanco, Community of Madrid, Spain
Name principal investigator (PI, Co-PI....): Marabini Roberto
Funding entity or bodies:
MINISTERIO DE EDUCACION Y CIENCIA
City funding entity: Spain

Start-End date: 2007 - 2009
Total amount: 91.960 €

8 **Name of the project:** Image Processing in Biological 3D Microscopy
Entity where project took place: Centro Nacional de Biotecnología (CSIC) **Type of entity:** R&D Centre
City of entity: Cantoblanco, Community of Madrid, Spain
Funding entity or bodies:
National Institute of Health **Type of entity:** Administrative Body of the National Health System
City funding entity: United States of America

Start-End date: 2001 - 2005
Total amount: 250.000 €

9 **Name of the project:** Characterization of Adult Stem Cell Involvement in Mammary Gland Development
Entity where project took place: Lawrence Berkeley National Laboratory (grant 366984)
City of entity: Berkeley, United States of America
Name principal investigator (PI, Co-PI....): Carlos Ortiz-de-Solorzano
Start-End date: 2002 - 2004
Total amount: 200.000 €

10 **Name of the project:** Three-dimensional Modeling of Breast Cancer Progression
Entity where project took place: University of California, Breast Cancer Research Program (grant 8WB-0150) **Type of entity:** University
City of entity: Berkeley, United States of America
Name principal investigator (PI, Co-PI....): Carlos Ortiz-de-Solorzano
Start-End date: 2002 - 2004
Total amount: 335.549 €

11 **Name of the project:** Reconstruction of mammary gland structure using three-dimensional computer based microscopy
City of entity: Berkeley, United States of America
Name principal investigator (PI, Co-PI....): Carlos Ortiz-de-Solorzano

Funding entity or bodies:
US Department of Defense, Breast Cancer Research Program **Type of entity:** State agency
City funding entity: United States of America

Start-End date: 2000 - 2003
Total amount: 385.639 €

R&D non-competitive contracts, agreements or projects with public or private entities

Name of the project: Elastic Image Registration - EIR
Type of project: Research and development, including transfer **Entity where project took place:** Andor Technology
Degree of contribution: Researcher
Entity where project took place: Andor Technology
Name principal investigator (PI, Co-PI....): Ignacio Arganda-Carreras; Arrate Munoz-Barrutia; Jan Kybic; Carlos Oscar Sanchez Sorzano
Nº of researchers: 4
Participating entity/entities: Andor Technology; Centro Nacional de Biotecnología; Czech Technical University; Universidad Autónoma de Madrid; Universidad de Navarra
Start date: 21/04/2010
Relevant results: Implementation of registration algorithm in commercial microscopy software

Scientific and technological activities

Scientific production

1 **H index:** 31
Date of application: 14/01/2025
Source of H-Index: GOOGLE SCHOLAR

2 **H index:** 25
Date of application: 14/01/2025
Source of H-Index: SCOPUS

Publications, scientific and technical documents

1 Davide Carnevali; Limei Zhong; Esther González Almela; Carlotta Viana; Mikhail Rotkevich; Aiping Wang; Daniel Franco Barranco; Aitor Gonzalez Marfil; Maria Victoria Neguembor; Alvaro Castells Garcia; Ignacio Arganda Carreras; Maria Pia Cosma. A deep learning method that identifies cellular heterogeneity using nanoscale nuclear features. Nature Machine Intelligence. 6 - 9, pp. 1021 - 1033. Nature Publishing Group UK, 27/08/2024.
DOI: 10.1038/s42256-024-00883-x
Type of production: Scientific paper
Corresponding author: Yes
Relevant publication: Yes

2 Daniel Franco Barranco; Arrate Muñoz Barrutia; Ignacio Arganda Carreras. Stable Deep Neural Network Architectures for Mitochondria Segmentation on Electron Microscopy Volumes. Neuroinformatics. Springer, 02/12/2021. ISSN 1559-0089

DOI: 10.1007/s12021-021-09556-1
Type of production: Scientific paper
Position of signature: 3
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 3
Source of citations: Google Scholar
Citations: 29
Relevant publication: Yes

3 Romain F Laine; Ignacio Arganda Carreras; Ricardo Henriques; Guillaume Jacquemet. Avoiding a replication crisis in deep-learning-based bioimage analysis. Nature Methods. 18 - 10, pp. 1136 - 1144. Nature Publishing Group, 04/10/2021.
DOI: 10.1038/s41592-021-01284-3
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 4
Source of citations: Google Scholar
Citations: 96
Relevant publication: Yes

4 Perez-Alvarez, Alberto; Fearey, Brenna C.; O'Toole, Ryan J.; Yang, Wei; Arganda-Carreras, Ignacio; Lamothe-Molina, Paul J.; Moeyaert, Benjamien; Mohr, Manuel A.; Panzera, Lauren C.; Schulze, Christian; Schreiter, Eric R.; Wiegert, J. Simon; Gee, Christine E.; Hoppa, Michael B.; Oertner, Thomas G.. Freeze-frame imaging of synaptic activity using SynTagMA. Nature Communications. 11 - 1, pp. 1 - 16. Nature Publishing Group, 18/05/2020. ISSN 2041-1723
DOI: 10.1038/s41467-020-16315-4
PMID: 32424147
Type of production: Scientific paper
Format: Journal
Position of signature: 5
Total no. authors: 15
Impact source: ISI
Category: Science Edition - MULTIDISCIPLINARY SCIENCES
Impact index in year of publication: 14,919
Journal in the top 25%: Yes
Position of publication: 4
No. of journals in the cat.: 73
Source of citations: Google Scholar
Citations: 26
Relevant publication: Yes

5 Borovec J; Kybic J; Arganda-Carreras I; Sorokin DV; Bueno G; Khvostikov AV; Bakas S; Chang EI; Heldmann S; Kartasalo K; Latonen L; Lotz J; Noga M; Pati S; Punithakumar K; Ruusuvuori P; Skalski A; Tahmasebi N; Valkonen M; Venet L; Wang Y; Weiss N; Wodzinski M; Xiang Y; Xu Y; Yan Y; Yushkevic P; Zhao S; Munoz-Barrutia A. ANHIR: Automatic Non-rigid Histological Image Registration Challenge.IEEE transactions on medical imaging. 07/04/2020. ISSN 0278-0062
DOI: 10.1109/TMI.2020.2986331
PMID: 32275587
Type of production: Scientific paper
Format: Journal
Position of signature: 3
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 5
Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 10,332
Journal in the top 25%: Yes

Position of publication: 5
No. of journals in the cat.: 112
Source of citations: Google Scholar
Citations: 23
Relevant publication: Yes

6 Lamiae Abdeladim; Katherine S Matho; Solene Clavreul; Pierre Mahou; Jean-Marc Sintes; Xavier Solinas; Ignacio Arganda-Carreras; Stephen G Turney; Jeff W Lichtman; Anatole Chessel; Alexis-Pierre Bemelmans; Karine Loulier; Willy Supatto; Jean Livet; Emmanuel Beaurepaire. Multicolor multiscale brain imaging with chromatic multiphoton serial microscopy. Nature communications. 10 - 1, pp. 1662 - 1662. Nature Publishing Group, 10/04/2019. ISSN 2041-1723

DOI: 10.1038/s41467-019-09552-9
Type of production: Scientific paper
Format: Journal
Position of signature: 7
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 15
Impact source: ISI
Category: Science Edition - MULTIDISCIPLINARY SCIENCES
Impact index in year of publication: 12.121
Journal in the top 25%: Yes
Position of publication: 6
No. of journals in the cat.: 71
Source of citations: Google Scholar
Citations: 95
Relevant publication: Yes

7 Ignacio Arganda-Carreras; Verena Kaynig; Curtis Rueden; Kevin W Eliceiri; Johannes Schindelin; Albert Cardona; H Sebastian Seung. Trainable Weka Segmentation: a machine learning tool for microscopy pixel classification. Bioinformatics. 33 - 15, pp. 2424 - 2426. Oxford University Press, 30/03/2017. ISSN 1367-4803

DOI: 10.1093/bioinformatics/btx180
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 7
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - MATHEMATICAL & COMPUTATIONAL BIOLOGY
Impact index in year of publication: 5.481
Journal in the top 25%: Yes
Position of publication: 3
No. of journals in the cat.: 59
Source of citations: Google Scholar
Citations: 2.219
Relevant publication: Yes

8 David Legland; Ignacio Arganda Carreras; Philippe Andrey. MorphoLibJ: integrated library and plugins for mathematical morphology with ImageJ. Bioinformatics. pp. btw413. Oxford University Press, 13/07/2016. ISSN 1367-4803

DOI: 10.1093/bioinformatics/btw413
Type of production: Scientific paper
Format: Journal
Source of citations: Google Scholar
Citations: 817
Relevant publication: Yes

9 Ignacio Arganda-Carreras; Srinivas C Turaga; Daniel R Berger; Dan Ciresan; Alessandro Giusti; Luca Maria Gambardella; Jürgen Schmidhuber; Dmitry Laptev; Sarvesh Dwivedi; Joachim M Buhmann; Ting Liu; Mojtaba Seyedhosseini; Tolga Tasdizen; Lee Kamentsky; Radim Burget; Vaclav Uher; Xiao Tan; Cangming Sun; Tuan Pham; Erhan Bas; Mustafa Gokhan Uzunbas; Albert Cardona; Johannes Schindelin; H. Sebastian Seung. Crowdsourcing

the creation of image segmentation algorithms for connectomics. Frontiers in Neuroanatomy. 9 - 142, 2015. Available on-line at: <http://www.frontiersin.org/neuroanatomy/10.3389/fnana.2015.00142/abstract>. ISSN 1662-5129
DOI: 10.3389/fnana.2015.00142
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 24
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - ANATOMY & MORPHOLOGY
Impact index in year of publication: 3,806
Journal in the top 25%: Yes
Position of publication: 2
No. of journals in the cat.: 21
Source of citations: Google Scholar
Citations: 324
Relevant publication: Yes

10 Nobuhiko Miyasaka; Ignacio Arganda Carreras; Noriko Wakisaka; Miwa Masuda; Uygar Sümbül; H Sebastian Seung; Yoshihiro Yoshihara. Olfactory projectome in the zebrafish forebrain revealed by genetic single-neuron labelling. Nature communications. 5, Nature Publishing Group, 09/04/2014. ISSN 2041-1723
DOI: 10.1038/ncomms4639
Type of production: Scientific paper
Format: Journal
Relevant publication: Yes

11 Johannes Schindelin; Ignacio Arganda-Carreras; Erwin Frise; Verena Kaynig; Mark Longair; Tobias Pietzsch; Stephan Preibisch; Curtis Rueden; Stephan Saalfeld; Benjamin Schmid; Jean-Yves Tinevez; Daniel James White; Volker Hartenstein; Kevin Eliceiri; Pavel Tomancak; Albert Cardona. Fiji: an open-source platform for biological-image analysis. Nature Methods. 9, pp. 676 - 682. 29/06/2012. ISSN 1548-7091
DOI: 10.1038/nmeth.2019
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Total no. authors: 16
Impact source: ISI
Category: Science Edition - BIOCHEMICAL RESEARCH METHODS
Impact index in year of publication: 23,565
Journal in the top 25%: Yes
Position of publication: 1
No. of journals in the cat.: 75
Source of citations: Google Scholar
Citations: 61.333
Relevant publication: Yes

12 Timothy Ragan; Lolahon R. Kadiri; Kannan Umadevi Venkataraju; Karsten Bahlmann; Julian Taranda; Ignacio Arganda-Carreras; Jason Sutin; H. Sebastian Seung; Pavel Osten. Serial two-photon tomography: an automated method for ex-vivo mousebrain imaging. Nature Methods. 9 - 3, pp. 252 - 258. 15/01/2012. ISSN 1548-7091
DOI: 10.1038/nmeth.1854
Type of production: Scientific paper
Format: Journal
Relevant publication: Yes

13 Michael Doube; Michal M. Klosowski; Ignacio Arganda-Carreras; Fabrice P. Cordelieres; Robert P. Dougherty; Jonathan S. Jackson; Benjamin Schmid; John R. Hutchinson; Sandra J. Shefelbine. BoneJ: Free and extensible bone image analysis in ImageJ. BONE. 47 - 6, pp. 1076 - 1079. ELSEVIER SCIENCE INC, 12/2010. ISSN 8756-3282
DOI: 10.1016/j.bone.2010.08.023
Type of production: Scientific paper
Format: Journal
Corresponding author: Yes

Relevant publication: Yes

14 Mohamad Abou Ali; Jinan Charafeddine; Fadi Dornaika; Ignacio Arganda Carreras. Enhancing Generalization and Mitigating Overfitting in Deep Learning for Brain Cancer Diagnosis from MRI. Applied Magnetic Resonance. pp. 1 - 36. Springer Vienna, 03/01/2025.
DOI: 10.1007/s00723-024-01743-y
Type of production: Scientific paper

15 Unai Elordi; Aranjuelo Aranjuelo; Luis Unzueta; Jose Luis Apellaniz; Ignacio Arganda Carreras. Optimizing Video Analytics Deployment for In-Flight Cabin Readiness Verification. IEEE Access. 11, pp. 92985 - 92995. IEEE, 28/08/2024.
DOI: 10.1109/ACCESS.2023.3309050
Type of production: Scientific paper
Corresponding author: No

16 Xabier Lekunberri; J David Ballester Berman; Ignacio Arganda Carreras; Jose A Fernandes Salvador. Automatic mapping of aquaculture activity in the Atlantic Ocean. International Journal of Applied Earth Observation and Geoinformation. 132, pp. 104061. Elsevier, 01/08/2024. ISSN 1569-8432
DOI: 10.1016/j.jag.2024.104061
Type of production: Scientific paper

17 Adrián Nuñez Marcos; Ignacio Arganda Carreras. Transformer-based fall detection in videos. Engineering Applications of Artificial Intelligence. 132, Pergamon, 01/06/2024. ISSN 0952-1976
DOI: 10.1016/j.engappai.2024.107937
Type of production: Scientific paper
Corresponding author: No

18 Iván Hidalgo Cenalmor; Joanna W. Pylvänäinen; Mariana G. Ferreira; Craig T. Russel; Alon Saguy; Ignacio Arganda Carreras; Yoav Shechtman; Guillaume Jacquemet; Ricardo Henriques; Estibaliz Gómez de Mariscal. DL4MicEverywhere: deep learning for microscopy made flexible, shareable and reproducible. Nature Methods. 21 - 6, pp. 1 - 3. Nature Publishing Group US, 17/05/2024.
DOI: 10.1038/s41592-024-02295-6
Type of production: Scientific paper
Source of citations: Google Scholar **Citations:** 8

19 Mohamad Abou Ali; Fadi Dornaika; Ignacio Arganda Carreras; Hussein Ali; Malak Karaouni. Naturalize Revolution: Unprecedented AI-Driven Precision in Skin Cancer Classification Using Deep Learning. BioMedInformatics. 4, pp. 638 - 660. MDPI, 01/03/2024.
DOI: 10.3390/biomedinformatics4010035
Type of production: Scientific paper
Corresponding author: No

20 Mohamad Abou Ali; Fadi Dornaika; Ignacio Arganda Carreras. Blood Cell Revolution: Unveiling 11 Distinct Types with 'Naturalize' Augmentation. Algorithms. 16 - 12, pp. 562. MDPI, 10/12/2023.
DOI: 10.3390/a16120562
Type of production: Scientific paper

21 Mohamad Abou Ali; Fadi Dornaika; Ignacio Arganda Carreras. White Blood Cell Classification: Convolutional Neural Network (CNN) and Vision Transformer (ViT) under Medical Microscope. Algorithms. 16 - 11, pp. 525. MDPI, 15/11/2023.
DOI: 10.3390/a16110525
Type of production: Scientific paper

22 Daniel Franco Barranco; Zudi Lin; Won-Dong Jang; Xueying Wang; Qijia Shen; Wenjie Yin; Yutian Fan; Mingxing Li; Chang Chen; Zhiwei Xiong; Rui Xin; Hao Liu; Huai Chen; Zhili Li; Jie Zhao; Xuejin Chen; Constantin Pape; Ryan Conrad; Luke Nightingale; Joost De Folter; Martin L Jones; Yanling Liu; Dorsa Ziaei; Stephan Huschauer; Ignacio Arganda Carreras; Hanspeter Pfister; Donglai Wei. Current Progress and Challenges in Large-Scale 3D Mitochondria Instance Segmentation. IEEE transactions on medical imaging. 42 - 12, pp. 3956 - 3971. IEEE, 28/09/2023.
DOI: 10.1109/TMI.2023.3320497
Type of production: Scientific paper
Corresponding author: No
Source of citations: Google Scholar **Citations:** 3

23 Jesús A. Andrés San Román; Carmen Gordillo Vázquez; Daniel Franco Barranco; Laura Morato; Cecilia H. Fernández Espartero; Gabriel Baonza; Antonio Tagua; Pablo Vicente Munuera; Ana M. Palacios; María P. Gavilán; Fernando Martín Belmonte; Valentina Annese; Pedro Gómez Gálvez; Ignacio Arganda Carreras; Luis M. Escudero. CartoCell, a high-content pipeline for 3D image analysis, unveils cell morphology patterns in epithelia. Cell Report Methods. 3 - 10, pp. 100597. Cell Press, 25/09/2023.
DOI: 10.1016/j.crmeth.2023.100597
Type of production: Scientific paper
Corresponding author: Yes
Source of citations: Google Scholar **Citations:** 6

24 Leander Lauenburg; Zudi Lin; Ruihan Zhang; Márcia dos Santos; Siyu Huang; Ignacio Arganda Carreras; Edward S Boyden; Hanspeter Pfister; Donglai Wei. 3D Domain Adaptive Instance Segmentation via Cyclic Segmentation GANs. IEEE Journal of Biomedical and Health Informatics. pp. 1 - 10. IEEE, 30/05/2023. ISSN 2168-2194
DOI: 10.1109/JBHI.2023.3281332
Type of production: Scientific paper **Format:** Journal
Source of citations: Google Scholar **Citations:** 2

25 Oscar Sanisidro; Ignacio Arganda Carreras; Juan Cantalapiedra. Folded: A toolkit to describe mammalian herbivore dentition from 2D images. Methods in Ecology and Evolution. 14 - 2, pp. 556 - 568. British Ecological Society, 12/12/2022. Available on-line at: <https://doi.org/10.1111/2041-210X.14042>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No

26 Asier Gomez Olivencia; Diego Lopez Onaindia; Nohemi Sala; Antoine Balzeau; Ana Pantoja Perez; Ignacio Arganda Carreras; Mikel Arlegi; Joseba Rios Garaizar; Aida Gomez Robles. The human remains found in 1967 in Axlor: Still not convincingly Neandertals: A reply to González-Urquijo et al. American Journal of Biological Anthropology. 180 - 2, pp. 245 - 251. John Wiley & Sons, Inc., 28/10/2022. Available on-line at: <https://doi.org/10.1002/ajpa.24633>. ISSN 1096-8644
Type of production: Scientific paper **Format:** Journal
Corresponding author: No

27 P. Gómez-Gálvez; P. Vicente-Munuera; S. Anbari; A. Tagua; C. Gordillo-Vázquez; J.A. Andrés-San Román; D. Franco-Barranco; A.M. Palacios; A. Velasco; C. Capitán-Agudo; C. Grima; V. Annese; I. Arganda-Carreras; R. Robles; A. Márquez; J. Buceta; L.M. Escudero. A quantitative biophysical principle to explain the 3D cellular connectivity in curved epithelia. Cell Systems. 13 - 8, pp. 631 - 643.e8. 17/08/2022. Available on-line at: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135803495&doi=10.1016%2fj.cels.2022.06.003&partnerID=40&md5=5ea8e029ce4edc1a7a5afc0711f547ab>.
DOI: 10.1016/j.cels.2022.06.003
Type of production: Scientific paper **Format:** Journal
Source of citations: Google Scholar **Citations:** 10

28 D. Franco-Barranco; J. Pastor-Tronch; A. González-Marfil; A. Muñoz-Barrutia; I. Arganda-Carreras. Deep learning based domain adaptation for mitochondria segmentation on EM volumes. Computer Methods and Programs in Biomedicine. 222, 14/06/2022. Available on-line at: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85132754586&doi=10.1016%2fj.cmpb.2022.106949&partnerID=40&md5=7e25a6055db16f959cf741b87b2f88c3>

Type of production: Scientific paper **Format:** Journal

29 M. Chourrout; M. Roux; C. Boisvert; C. Gislard; D. Legland; I. Arganda-Carreras; C. Olivier; F. Peyrin; H. Boutin; N. Rama; T. Baron; D. Meyronet; E. Brun; H. Rositi; M. Wiart; F. Chauveau. Brain virtual histology with X-ray phase-contrast tomography Part II: 3D morphologies of amyloid-β plaques in Alzheimer's disease models. Biomedical Optics Express. 13 - 3, pp. 1640 - 1653. 01/03/2022. Available on-line at: <http://dx.doi.org/10.1364/BOE.438890>.

Type of production: Scientific paper **Format:** Journal

Position of signature: 6 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.12

Source of citations: SCOPUS **Citations:** 1

30 X. Lekunberri; J. Ruiz; I. Quincoces; F. Dornaika; I. Arganda-Carreras; J.A. Fernandes. Identification and measurement of tropical tuna species in purse seiner catches using computer vision and deep learning. Ecological Informatics. 67, 01/03/2022. Available on-line at: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120784488&doi=10.1016%2fj.ecoinf.2021.101495&partnerID=40&md5=d2a0789d6e364d34cfd304d3fb79bc59

Type of production: Scientific paper **Format:** Journal

31 S. Arganda; I. Arganda-Carreras; D.G. Gordon; A.P. Hoadley; A. Pérez-Escudero; M. Giurfa; J.F.A. Traniello. Statistical Atlases and Automatic Labeling Strategies to Accelerate the Analysis of Social Insect Brain Evolution. Frontiers in Ecology and Evolution. 9, 17/02/2022. Available on-line at: <http://dx.doi.org/10.3389/fevo.2021.745707>.

Type of production: Scientific paper **Format:** Journal

Position of signature: 2 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 1.301

Source of citations: SCOPUS **Citations:** 0

32 A. Almeida; U. Bermejo; A. Bilbao; G. Azkune; U. Aguilera; M. Emaldi; F. Dornaika; I. Arganda-Carreras. A Comparative Analysis of Human Behavior Prediction Approaches in Intelligent Environments. Sensors. 22 - 3, 01/02/2022. Available on-line at: <http://dx.doi.org/10.3390/s22030701>.

Type of production: Scientific paper **Format:** Journal

Position of signature: 8 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS

Impact index in year of publication: 0.803

Source of citations: SCOPUS **Citations:** 0

33 A. Núñez-Marcos; G. Azkune; I. Arganda-Carreras. Egocentric Vision-based Action Recognition: A survey. Neurocomputing. 472, pp. 175 - 197. 01/02/2022. Available on-line at: <http://dx.doi.org/10.1016/j.neucom.2021.11.081>.

Type of production: Scientific paper **Format:** Journal

Position of signature: 3

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS
Impact index in year of publication: 1.66

Source of citations: SCOPUS

Citations: 1

34 U. Elordi; C. Lunerti; L. Unzueta; J. Goenetxea; N. Aranjuelo; A. Bertelsen; I. Arganda-Carreras. Designing automated deployment strategies of face recognition solutions in heterogeneous iot platforms. Information (Switzerland). 12 - 12, 20/12/2021. Available on-line at: <http://dx.doi.org/10.3390/info12120532>.

Type of production: Scientific paper

Format: Journal

Position of signature: 7

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Impact source: SCOPUS
Impact index in year of publication: 0.624

Source of citations: SCOPUS

Citations: 0

35 Xabier Lekunberri; Jon Ruiz; Iñaki Quincoces; Fadi Dornaika; Ignacio Arganda Carreras; Jose A. Fernandes. Identification and measurement of tropical tuna species in purse seiner catches using computer vision and deep learning. Ecological Informatics. 67, pp. 101495 - 101495. Elsevier, 25/11/2021. Available on-line at: <https://www.sciencedirect.com/science/article/pii/S1574954121002867>. ISSN 1574-9541

DOI: 10.1016/j.ecoinf.2021.101495

Type of production: Scientific paper

Format: Journal

36 Unai Elordi; Luis Unzueta; Jon Goenetxea; Sergio Sanchez Carballido; Ignacio Arganda Carreras; Oihana Otaegui. Benchmarking Deep Neural Network Inference Performance on Serverless Environments With MLPerf. IEEE Software. 38 - 1, pp. 81 - 87. Institute of Electrical and Electronics Engineers (IEEE), 09/10/2021.

DOI: 10.1109/ms.2020.3030199

Type of production: Scientific paper

Format: Journal

Corresponding author: No

37 Karim Hammoudi; Halim Benhabiles; Mahmoud Melkemi; Fadi Dornaika; Ignacio Arganda Carreras; Dominique Collard; Arnaud Scherpereel. Deep learning on chest x-ray images to detect and evaluate pneumonia cases at the era of covid-19. Journal of Medical Systems. 45 - 7, pp. 1 - 10. Springer, 08/06/2021.

Type of production: Scientific paper

Format: Journal

38 Aitzol Elu Etxano; Gorka Azkune Galparsoro; Ignacio Arganda Carreras; Aitor Soroa Echave; Eneko Agirre Bengoa. Inferring spatial relations from textual descriptions of images. Pattern Recognition. 113, pp. 107847. 01/05/2021.

DOI: 10.1016/j.patcog.2021.107847

Type of production: Scientific paper

Format: Journal

Position of signature: 3

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 5

39 Abdelmalik Moujahid; Fadi Dornaika; Ignacio Arganda Carreras; Jorge Reta Carcamo. Efficient and compact face descriptor for driver drowsiness detection. Expert Systems with Applications. 168, 15/04/2021.

DOI: 10.1016/j.eswa.2020.114334

Type of production: Scientific paper

Format: Journal

Corresponding author: No

40 Fadi Dornaika; Kunwei Wang; Ignacio Arganda Carreras; Anne Elorza Deias; Abdelmalik Moujahid. Toward graph-based semi-supervised face beauty prediction. Expert Systems with Applications. 142, pp. 112990. Pergamon, 15/03/2020. ISSN 0957-4174
DOI: 10.1016/j.eswa.2019.112990
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes

41 Fadi Dornaika; Salah Eddine Bekhouche; Ignacio Arganda Carreras. Robust regression with deep CNNs for facial age estimation: An empirical study. Expert Systems with Applications. 141, pp. 112942. Pergamon, 01/03/2020. ISSN 0957-4174
DOI: 10.1016/j.eswa.2019.112942
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes

42 Aida Gomez Robles; Mikel Arlegi; Asier Gomez Olivencia; Diego Lopez Onaindia; Nohemi Sala; Antoine Balzeau; Ana Pantoja Perez; Ignacio Arganda Carreras; Joseba Rios Garaizar. The human remains from Axlor (Dima, Biscay, northern Iberian Peninsula). American Journal of Physical Anthropology. 2020, pp. 1 - 17. 30/12/2019. ISSN 1096-8644
DOI: 10.1002/ajpa.23989
Type of production: Scientific paper **Format:** Journal
Corresponding author: No

43 Fadi Dornaika; Anne Elorza Deias; Ignacio Arganda Carreras. Image-based face beauty analysis via graph-based semi-supervised learning. Multimedia Tools and Applications. 79, pp. 3005 - 3030. Springer, 14/12/2019. ISSN 1573-7721
DOI: 10.1007/s11042-019-08206-8
Type of production: Scientific paper **Format:** Journal
Corresponding author: No

44 Fadi Dornaika; Anne Elorza Deias; Kunwei Wang; Ignacio Arganda Carreras. Nonlinear, flexible, semisupervised learning scheme for face beauty scoring. Journal of Electronic Imaging. 28 - 4, pp. 043013. International Society for Optics and Photonics, 17/07/2019. ISSN 1017-9909
DOI: 10.1117/1.JEI.28.4.043013
Type of production: Scientific paper **Format:** Journal
Corresponding author: No

45 Fadi Dornaika; Ignacio Arganda Carreras; Oscar Serradilla. Transfer learning and feature fusion for kinship verification. Neural Computing and Applications. pp. 1 - 13. Springer, 20/04/2019.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No

46 Darcy Greer Gordon; Alejandra Zelaya; Ignacio Arganda-Carreras; Sara Arganda; James FA Traniello. Division of labor and brain evolution in insect societies: Neurobiology of extreme specialization in the turtle ant Cephalotes varians. PloS one. 14 - 3, pp. e0213618 - e0213618. Public Library of Science, 27/03/2019. ISSN 1932-6203
DOI: 10.1371/journal.pone.0213618
Type of production: Scientific paper **Format:** Journal

47 Olazabal-Herrero A; Sendino M; Arganda-Carreras I; Rodríguez JA. WDR20 regulates shuttling of the USP12 deubiquitinase complex between the plasma membrane, cytoplasm and nucleus.European Journal of Cell Biology. 98 - 1, pp. 12 - 26. 01/01/2019. ISSN 0171-9335
DOI: 10.1016/j.ejcb.2018.10.003
PMID: 30466959
Type of production: Scientific paper **Format:** Journal

48 Malhan, Deeksha; Muelke, Matthias; Rosch, Sebastian; Schaefer, Annemarie B.; Merboth, Felix; Weisweiler, David; Heiss, Christian; Arganda-Carreras, Ignacio; El Khassawna, Thaqif. An Optimized Approach to Perform Bone Histomorphometry. Frontiers in Endocrinology. 9, 21/11/2018. ISSN 1664-2392
DOI: 10.3389/fendo.2018.00666
Type of production: Scientific paper

49 Dornaika F.; Arganda-Carreras I.; Belver C.. Age estimation in facial images through transfer learning. Machine Vision and Applications. 20/09/2018. ISSN 09328092
DOI: 10.1007/s00138-018-0976-1
Type of production: Scientific paper **Format:** Journal

50 Ignacio Arganda-Carreras; Tudor Manoliu; Nicolas Mazuras; Florian Schulze; Juan E Iglesias; Katja B{\"u}hler; Arnim Jenett; Fran{ç}ois Rouyer; Philippe Andrey. A Statistically Representative Atlas for Mapping Neuronal Circuits in the Drosophila Adult Brain. Frontiers in neuroinformatics. 12, pp. 13 - 13. Frontiers, 23/03/2018. ISSN 1662-5196
DOI: 10.3389/fninf.2018.00013
Type of production: Scientific paper **Format:** Journal
Source of citations: Google Scholar **Citations:** 12

51 Adrián Nuñez Marcos; Gorka Azkune; Ignacio Arganda Carreras. Vision-Based Fall Detection with Convolutional Neural Networks. Wireless Communications and Mobile Computing. 2017, pp. 1 - 16. Hindawi, 06/12/2017. ISSN 1530-8669
DOI: 10.1155/2017/9474806
Type of production: Scientific paper **Format:** Journal

52 Carlos Belver; Ignacio Arganda Carreras; Fadi Dornaika. Evaluating Age Estimation Using Deep Convolutional Neural Nets. Electronic Imaging. 2017 - 17, pp. 100 - 105. Society for Imaging Science and Technology, 29/01/2017. ISSN 1017-9909
DOI: 10.2352/ISSN.2470-1173.2017.17.COIMG-432
Type of production: Scientific paper **Format:** Journal

53 Fadi Dornaika; Ammar Assoum; Abdelmalik Moujahid; Ignacio Arganda-Carreras. An Empirical Study of Global Descriptors for Image-based Localization in Dense Urban Scenes. International Journal of Sensors Wireless Communications and Control. 6 - 3, pp. 142 - 152. Bentham Science Publishers, 2016. ISSN 2210-3287
DOI: 10.2174/2210327906666160606162929
Type of production: Scientific paper **Format:** Journal

54 Axel Poulet; Ignacio Arganda-Carreras; David Legland; Aline V Probst; Philippe Andrey; Christophe Tatout. NucleusJ: an ImageJ plugin for quantifying 3D images of interphase nuclei. Bioinformatics. 31 - 7, pp. 1144 - 1146. Oxford University Press, 01/04/2015. ISSN 1367-4803
DOI: 10.1093/bioinformatics/btu774
Type of production: Scientific paper **Format:** Journal

55 Yongsoo Kim; Kannan Umadevi Venkataraju; Kith Pradhan; Carolin Mende; Julian Taranda; Srinivas C Turaga; Ignacio Arganda-Carreras; Lydia Ng; Michael J Hawrylycz; Kathleen S Rockland; others. Mapping Social Behavior-Induced Brain Activation at Cellular Resolution in the Mouse. Cell reports. 10 - 2, pp. 292 - 305. Cell Press, 2015. ISSN 2211-1247
DOI: 10.1016/j.celrep.2014.12.014
Type of production: Scientific paper **Format:** Journal

56 Javier Cabrera; Fernando E D{\'\i}az-Manzano; Marta Barcala; Ignacio Arganda-Carreras; Janice Almeida-Engler; Gilbert Engler; Carmen Fenoll; Carolina Escobar. Phenotyping nematode feeding sites: three-dimensional reconstruction and volumetric measurements of giant cells induced by root-knot nematodes in Arabidopsis. New Phytologist. 2015. ISSN 1469-8137

DOI: 10.1111/nph.13249

Type of production: Scientific paper **Format:** Journal

57 Jaza Gul-Mohammed; Ignacio Arganda Carreras; Philippe Andrey; Vincent Galy; Thomas Boudier. A generic classification-based method for segmentation of nuclei in 3D images of early embryos. BMC bioinformatics. 15 - 1, BioMed Central Ltd, 14/01/2014. ISSN 1471-2105

DOI: 10.1186/1471-2105-15-9

Type of production: Scientific paper **Format:** Journal

58 Albert Cardona; Stephan Saalfeld; Johannes Schindelin; Ignacio Arganda-Carreras; Stephan Preibisch; Mark Longair; Pavel Tomancak; Volker Hartenstein; Rodney J. Douglas. TrakEM2 Software for Neural Circuit Reconstruction. PLoS ONE. 7 - 6, pp. e38011 - e38011. Public Library of Science, 19/06/2012. ISSN 1932-6203

DOI: 10.1371/journal.pone.0038011

Type of production: Scientific paper **Format:** Journal

Position of signature: 4 **Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

Total no. authors: 9

Impact source: ISI **Category:** Science Edition - MULTIDISCIPLINARY SCIENCES

Impact index in year of publication: 3,73 **Journal in the top 25%:** Yes

Position of publication: 7 **No. of journals in the cat.:** 56

Source of citations: Google Scholar **Citations:** 842

59 Ignacio Arganda-Carreras; Carlos O. S. Sorzano; Philippe Thevenaz; Arrate Munoz-Barrutia; Jan Kybic; Roberto Marabini; Jose Maria Carazo; Carlos Ortiz-de-Solorzano. Non-rigid consistent registration of 2D image sequences. Physics in Medicine and Biology. 55 - 20, pp. 6215 - 6215. 21/10/2010. Available on-line at: <http://stacks.iop.org/0031-9155/55/i=20/a=012>. ISSN 1361-6560

DOI: 10.1088/0031-9155/55/20/012

Type of production: Scientific paper **Format:** Journal

Corresponding author: Yes

60 Albert Cardona; Stephan Saalfeld; Ignacio Arganda-Carreras; Wayne Pereanu; Johannes Schindelin; Volker Hartenstein. Identifying Neuronal Lineages of Drosophila by Sequence Analysisof Axon Tracts. Journal of Neuroscience. 30 - 22, pp. 7538 - 7553. SOC NEUROSCIENCE, 02/06/2010. ISSN 0270-6474

DOI: 10.1523/JNEUROSCI.0186-10.2010

Type of production: Scientific paper **Format:** Journal

61 Ignacio Arganda-Carreras; Rodrigo Fernandez-Gonzalez; Arrate Munoz-Barrutia; Carlos Ortiz-de-Solorzano. 3D Reconstruction of Histological Sections: Application to Mammary Gland Tissue. Microscopy Research and Technique. 73 - 11, pp. 1019 - 1029. 15/03/2010.

DOI: 10.1002/jemt.20829

Type of production: Scientific paper **Format:** Journal

Corresponding author: Yes

62 Carlos O. S. Sorzano; Ignacio Arganda-Carreras; Philippe Thevenaz; Ana Beloso; Gracia Morales; Israel Valdes; Carmen Perez-Garcia; Carmen Castillo; Elisa andUnser Michael Garrido. Elastic Image Registration of 2D gels for differential and repeatability studies. Proteomics. 8, pp. 62 - 65. 01/01/2008. ISSN 1615-9861

DOI: 10.1002/pmic.200700473

Type of production: Scientific paper **Format:** Journal

63 Estibaliz Gómez-de-Mariscal; Daniel Franco Barranco; Arrate Muñoz Barrutia; Ignacio Arganda Carreras. Building a Bioimage Analysis Workflow Using Deep Learning. Bioimage Data Analysis Workflows–Advanced Components and Methods. pp. 59 - 88. Springer International Publishing, 29/09/2022. Available on-line at: <https://doi.org/10.1007/978-3-030-76394-7_4>.
Type of production: Book chapter **Format:** Book
Corresponding author: Yes

64 Adrian Nuñez-Marcos; Gorka Azkune; Ignacio Arganda Carreras. Exploiting Egocentric Cues for Action Recognition for Ambient Assisted Living Applications. Emerging Technologies in Biomedical Engineering and Sustainable TeleMedicine. pp. 131 - 158. Springer, 18/08/2021.
Type of production: Book chapter **Format:** Book

65 F Dornaika; F Khattar; J Reta; I Arganda-Carreras; M Hernandez; Y Ruichek. Image-Based Driver Drowsiness Detection. Lecture Notes on Computer Science. 11264, pp. 61 - 71. Springer, Cham, 19/01/2019. ISBN 978-3-030-12177-8
DOI: 10.1007/978-3-030-12177-8_6
Type of production: Book chapter **Format:** Book

66 Ignacio Arganda-Carreras; Philippe Andrey. Designing Image Analysis Pipelines in Light Microscopy: A Rational Approach. Light Microscopy: Methods and Protocols. pp. 185 - 207. Springer New York, 22/03/2017. ISBN 978-1-4939-6808-4
DOI: 10.1007/978-1-4939-6810-7_13
Type of production: Book chapter **Format:** Book
Corresponding author: Yes

Works submitted to national or international conferences

1 **Title of the work:** Multi-Level XAI-Driven MLOps Pipeline for the Adjustment of Fruit and Vegetable Classifiers
Name of the conference: 2024 IEEE 12th International Conference on Intelligent Systems (IS)
City of event: Varna, Bulgaria
Date of event: 29/08/2024
End date: 31/08/2024
Organising entity: IEEE
Francisco J Iriarte; Miguel E Ortiz; Luis Unzueta; Javier Martinez; Javier Zaldivar; Ignacio Arganda Carreras.

2 **Title of the work:** Learning Gaze-aware Compositional GAN from Limited Annotations
Name of the conference: SIGGRAPH
City of event: Denver, United States of America
Date of event: 28/07/2024
End date: 01/08/2024
Organising entity: ACM
Ignacio Arganda Carreras; Nerea Aranjuelo; Siyu Huang; Luis Unzueta; Oihana Otaegi; Hanspeter Pfister; Donglai Wei. "Proceedings of the ACM on Computer Graphics and Interactive Techniques". 7 - 2, pp. 1 - 17.
DOI: 10.1145/36547

3 **Title of the work:** Self-supervised Vision Transformers for image-to-image labeling: a BiaPy solution to the LightMyCells Challenge
Name of the conference: 2024 IEEE 21st International Symposium on Biomedical Imaging (ISBI 2024)
Type of participation: Participatory - oral communication
Reasons for participation: Review before acceptance
City of event: Athens, Greece
Date of event: 27/05/2024
End date: 31/05/2024
Organising entity: IEEE
Type of contribution: Scientific paper
Daniel Franco Barranco; Aitor Gonzalez Marfil; Ignacio Arganda Carreras.

4 **Title of the work:** Deep learning-based bioimage analysis for all audiences
Name of the conference: 5th NEUBIAS Conference: Symposium
Type of participation: Participatory - invited/keynote talk
Reasons for participation: Upon invitation
Corresponding author: Yes
City of event: Porto, Portugal
Date of event: 11/05/2023
End date: 12/05/2023
Organising entity: NEUBIAS: Network of European BioImage Analysts, COST Action CA15124
Ignacio Arganda Carreras.

5 **Title of the work:** BiaPy: a ready-to-use library for Bioimage Analysis Pipelines
Name of the conference: 2023 IEEE 20th International Symposium on Biomedical Imaging (ISBI 2023)
Type of participation: 'Participatory - poster
Reasons for participation: Review before acceptance
City of event: Cartegena de Indias, Colombia
Date of event: 18/04/2023
End date: 23/04/2023
Organising entity: IEEE
Type of contribution: Scientific paper
Daniel Franco Barranco; Jesus A Andres San Roman; Pedro Gomez Galvez; Luis M. Escudero; Arrate Muñoz Barrutia; Ignacio Arganda Carreras.

6 **Title of the work:** Modeling Wound Healing Using Vector Quantized Variational Autoencoders and Transformers
Name of the conference: 2023 IEEE 20th International Symposium on Biomedical Imaging (ISBI 2023)
Type of participation: Participatory - oral communication
Reasons for participation: Review before acceptance
City of event: Cartegena de Indias, Colombia
Date of event: 18/04/2023
End date: 23/04/2023
Organising entity: IEEE
Type of contribution: Scientific paper
Lenka Backová; Guillermo Bengoetxea; Svana Rogalla; Daniel Franco Barranco; Jérôme Solon; Ignacio Arganda Carreras.

7 **Title of the work:** AxonEM Dataset: 3D Axon Instance Segmentation of Brain Cortical Regions
Name of the conference: International Conference on Medical Image Computing and Computer-Assisted Intervention
Type of participation: Participatory - oral communication

City of event: Strasbourg, France
Date of event: 27/10/2021
End date: 01/11/2021
Organising entity: Springer
Publication in conference proceedings: Yes
Type of contribution: Scientific book or monograph
Donglai Wei; Kisuk Lee; Hanyu Li; Ran Lu; J Alexander Bae; Zequan Liu; Lifu Zhang; Marcia dos Santos; Zudi Lin; Thomas Uram; Xueying Wang; Ignacio Arganda Carreras; Brian Matejek; Narayanan Kasthuri; Jeff Lichtman; Hanspeter Pfister. pp. 175 - 185. 2021.

8 **Title of the work:** NucMM Dataset: 3D Neuronal Nuclei Instance Segmentation at Sub-Cubic Millimeter Scale
Name of the conference: International Conference on Medical Image Computing and Computer-Assisted Intervention
Type of participation: Participatory - oral communication
City of event: Strasbourg, France
Date of event: 27/10/2021
End date: 01/11/2021
Organising entity: Springer
Publication in conference proceedings: Yes
Type of contribution: Scientific book or monograph
Zudi Lin; Donglai Wei; Mariela D Petkova; Yuelong Wu; Zergham Ahmed; Silin Zou; Nils Wendt; Jonathan Boulanger-Weill; Xueying Wang; Nagaraju Dhanyasi; Ignacio Arganda Carreras; Florian Engert; Jeff Lichtman; Hanspeter Pfister. pp. 164 - 174. 2021.

9 **Title of the work:** Accurate 3D Object Detection from Point Cloud Data using Bird's Eye View Representations
Name of the conference: 13th International Joint Conference on Computational Intelligence (IJCCI 2021)
Type of participation: Participatory - oral communication
City of event: Online streaming,
Date of event: 25/10/2021
End date: 27/10/2021
Organising entity: INSTICC
Nerea Aranjuelo; Guus Engels; David Montero; Marcos Nieto; Ignacio Arganda Carreras; Luis Unzueta; Oihana Otaegui. pp. 246 - 253. ISSN 2184-2825, ISBN 978-989-758-534-0
DOI: 10.5220/0010688400003063

10 **Title of the work:** Optimal deployment of face recognition solutions in a heterogeneous IoT platform for secure elderly care applications
Name of the conference: 25th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES 2021)
Type of participation: Participatory - oral communication
City of event: Szczecin, Poland
Date of event: 08/09/2021
End date: 10/11/2021
Publication in conference proceedings: Yes
Type of contribution: Scientific book or monograph
Unai Elordi; Alvaro Bertelsen; Luis Unzueta; Nerea Aranjuelo; Jon Goenetxea; Ignacio Arganda Carreras. En: Procedia Computer Science. 192, pp. 3204 - 3213. Elsevier, 2021.

11 **Title of the work:** On-demand Serverless Video Surveillance with Optimal Deployment of Deep Neural Networks
Name of the conference: VISAPP 16th International Conference on Computer Vision Theory and Applications
Type of participation: Participatory - oral communication
City of event: Online,
Date of event: 06/02/2021
End date: 08/02/2021
Publication in conference proceedings: Yes
Type of contribution: Scientific book or monograph
Unai Elordi; Luis Unzueta; Jon Goenetxea; Estibaliz Loyo; Ignacio Arganda Carreras; Oihana Otaegui. "VISIGRAPP (4: VISAPP)". pp. 717 - 723. 2021.

12 **Title of the work:** MRI to CTA Translation for Pulmonary Artery Evaluation Using CycleGANs Trained with Unpaired Data
Name of the conference: International Workshop on Thoracic Image Analysis
Type of participation: Participatory - oral communication
City of event: Lima, Peru
Date of event: 08/10/2020
End date: 08/10/2020
Organising entity: Springer
Type of contribution: Scientific book or monograph
Maialen Stephens; Raul San Jose Estepar; Jesus Ruiz-Cabello; Ignacio Arganda Carreras; Ivan Macia; Karen Lopez-Linares. "International Workshop on Thoracic Image Analysis". pp. 118 - 129. 2020.
Source of citations: Google Scholar **Citations:** 1

13 **Title of the work:** MitoEM dataset: Large-scale 3d mitochondria instance segmentation from em images
Name of the conference: International Conference on Medical Image Computing and Computer-Assisted Intervention
Type of participation: Participatory - oral communication
City of event: Lima, Peru
Date of event: 04/10/2020
End date: 08/10/2020
Organising entity: Springer
Publication in conference proceedings: Yes
Type of contribution: Scientific book or monograph
Donglai Wei; Zudi Lin; Daniel Franco-Barranco; Nils Wendt; Xingyu Liu; Wenjie Yin; Xin Huang; Aarush Gupta; Won-Dong Jang; Xueying Wang; Ignacio Arganda Carreras; Jeff W. Lichtman; Hanspeter Pfister. pp. 66 - 76. 2020.
Source of citations: Google Scholar **Citations:** 17

14 **Title of the work:** Robust 3D object detection from LiDAR point cloud data with spatial information aggregation
Name of the conference: International Workshop on Soft Computing Models in Industrial and Environmental Applications (SOCO 2020)
Type of participation: Participatory - oral communication
City of event: Burbos, Spain
Date of event: 16/09/2020
End date: 18/09/2020
Organising entity: Springer
Publication in conference proceedings: Yes

Type of contribution: Scientific book or monograph
Nerea Aranjuelo; Guus Engels; Luis Unzueta; Ignacio Arganda Carreras; Marcos Nieto; Oihana Otaegui. "International Workshop on Soft Computing Models in Industrial and Environmental Applications". pp. 813 - 823. 2020.

15 **Title of the work:** Using External Knowledge to Improve Zero-Shot Action Recognition in Egocentric Videos
Name of the conference: 17th International Conference on Image Analysis and Recognition
Type of participation: Participatory - oral communication
Corresponding author: No
City of event: Virtual Conference,
Date of event: 24/06/2020
End date: 26/06/2020
Organising entity: Association for Image and Machine Intelligence
Publication in conference proceedings: Yes
Type of contribution: Scientific book or monograph
Adrián Núñez Marcos; Gorka Azkune Galparsoro; Eneko Agirre Bengoa; Diego López-de-Ipiña González-de-Artaza; Ignacio Arganda Carreras. "Using External Knowledge to Improve Zero-Shot Action Recognition in Egocentric Videos".

16 **Title of the work:** Deep Learning based Detection of Hair Loss Levels from Facial Images
Name of the conference: 2019 Ninth International Conference on Image Processing Theory, Tools and Applications (IPTA)
Type of participation: Participatory - oral communication
Corresponding author: No
City of event: Istanbul, Turkey
Date of event: 06/11/2019
End date: 09/11/2019
Organising entity: IEEE
Publication in conference proceedings: Yes
Type of contribution: Scientific book or monograph
Halim Benhabiles; Karim Hammoudi; Ziheng Yang; Feryal Windal; Mahmoud Melkemi; Fadi Dornaika; Ignacio Arganda Carreras.
Source of citations: Google Scholar **Citations:** 4

17 **Title of the work:** Chromatic serial multiphoton microscopy for high-content multiscale analysis of large brain volumes
Name of the conference: Optics and the Brain
Type of participation: 'Participatory - poster
City of event: Tucson, AZ, United States of America
Date of event: 14/04/2019
End date: 17/04/2019
Organising entity: Optical Society of America
Type of contribution: Scientific book or monograph
Lamiae Abdeladim; Katherine Matho; Solene Clavreul; Pierre Mahou; Jean-Marc Sintes; Xavier Solinas; Ignacio Arganda-Carreras; Anatole Chessel; Steve Turney; Jeff W Lichtman; others. "Optics and the Brain". pp. BM2A - 3. 2019.

18 **Title of the work:** Driver Drowsiness Detection in Facial Images
Name of the conference: 2018 Eighth International Conference on Image Processing Theory, Tools and Applications (IPTA)
Type of participation: Participatory - oral communication

City of event: Xi'an, China
Date of event: 07/11/2018
End date: 11/11/2018
Organising entity: IEEE
Publication in conference proceedings: Yes
Type of contribution: Scientific book or monograph
F Dornaika; J Reta; I Arganda-Carreras; A Moujahid. "2018 Eighth International Conference on Image Processing Theory, Tools and Applications (IPTA)". pp. 1 - 6. 2018. Available on-line at: <https://ieeexplore.ieee.org/abstract/document/8608130>. ISSN 2154-512X, ISBN 978-1-5386-6428-5
Source of citations: Google Scholar **Citations:** 6

19 **Title of the work:** How Can Deep Neural Networks Be Generated Efficiently for Devices with Limited Resources?
Name of the conference: International Conference on Articulated Motion and Deformable Objects
City of event: Palma de Mallorca, Balearic Islands, Spain
Date of event: 12/07/2018
End date: 13/07/2018
Organising entity: The Mathematics and Computer Science Department of the UIB and the Spanish Association for Pattern Recognition and Image Analysis (AERFAI) **Type of entity:** University
Unai Elordi; Luis Unzueta; Ignacio Arganda Carreras; Oihana Otaegui. "How Can Deep Neural Networks Be Generated Efficiently for Devices with Limited Resources?". pp. 24 - 33. Springer, Cham, Available on-line at: <https://doi.org/10.1007/978-3-319-94544-6_3>. ISBN 978-3-319-94543-9

20 **Title of the work:** Multimodal Deep Learning for Advanced Driving Systems
Name of the conference: International Conference on Articulated Motion and Deformable Objects
Type of participation: Participatory - oral communication
City of event: Palma de Mallorca, Balearic Islands, Spain
Date of event: 12/07/2018
End date: 13/07/2018
Organising entity: The Mathematics and Computer Science Department of the UIB and the Spanish Association for Pattern Recognition and Image Analysis (AERFAI) **Type of entity:** University
Publication in conference proceedings: Yes
Type of contribution: Scientific book or monograph
Nerea Aranjuelo; Luis Unzueta; Ignacio Arganda Carreras; Oihana Otaegui. "How Can Deep Neural Networks Be Generated Efficiently for Devices with Limited Resources?". pp. 95 - 105. Springer, Cham, Available on-line at: <https://doi.org/10.1007/978-3-319-94544-6_10>. ISBN 978-3-319-94544-6
Source of citations: Google Scholar **Citations:** 11

21 **Title of the work:** Group-Wise 3D Registration Based Templates to Study the Evolution of Ant Worker Neuroanatomy
Name of the conference: IEEE International Symposium on Biomedical Imaging
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Melbourne, Australia
Date of event: 20/04/2017
End date: 21/04/2017
Organising entity: IEEE **Type of entity:** Associations and Groups
City organizing entity: United States of America

Ignacio Arganda Carreras; Darcy Gordon; Sara Arganda Carreras; Maxime Beaudoin; James Traniello. "Group-Wise 3D Registration Based Templates to Study the Evolution of Ant Worker Neuroanatomy".

22 **Title of the work:** Comparative Study of Human Age Estimation Based on Hand-Crafted and Deep Face Features
Name of the conference: International Workshop on Face and Facial Expression Recognition from Real World Videos
City of event: Cancun, Mexico
Date of event: 04/12/2016
Organising entity: Springer
Type of contribution: Scientific book or monograph
C Belver; I Arganda-Carreras; Fadi Dornaika. "International Workshop on Face and Facial Expression Recognition from Real World Videos". pp. 98 - 112. 2016.

23 **Title of the work:** Numerical evaluation of whole Drosophila adult brain templates: a group-wise atlas solution
Name of the conference: EFOR Annual Meeting 2016
Corresponding author: Yes
City of event: Paris, Île de France, France
Date of event: 07/03/2016
End date: 08/03/2016
Organising entity: EFOR **Type of entity:** Foundation
Ignacio Arganda; Tudor Manoliu; Juan Eugenio Iglesias; Arnim Jenett; François Rouyer; Philippe Andrey. "Numerical evaluation of whole Drosophila adult brain templates: a group-wise atlas solution".

24 **Title of the work:** Construction and evaluation of statistical atlases of Drosophila adult brains
Name of the conference: 16eme Rencontre du Club de Neurobiologie des Invertebrés
Corresponding author: Yes
City of event: Gif-sur-Yvette, France
Date of event: 11/06/2015
End date: 12/06/2015
Organising entity: Institut des Neurosciences Paris-Saclay (Neuro-PSI)
City organizing entity: Paris, France
Ignacio Arganda Carreras; Manoliu Tudor; Juan Eugenio Iglesias; Arnim Jenett; François Rouyer; Andrey Philippe. "Construction and evaluation of statistical atlases of Drosophila adult brains".

25 **Title of the work:** Group-wise registration methods to construct statistical atlases of Drosophila adult brains
Name of the conference: VIB Bioimage Informatics
Corresponding author: Yes
City of event: Leuven, Belgium
Date of event: 08/10/2014
End date: 10/10/2014
Organising entity: VIB **Type of entity:** Innovation and Technology Centres
City organizing entity: Flanders, Belgium
Ignacio Arganda Carreras; Tudor Manoliu; Juan Eugenio Iglesias; Arnim Jenett; François Rouyer; Philippe Andrey. "Group-wise registration methods to construct statistical atlases of Drosophila adult brains".

26 **Title of the work:** ISBI challenge: "3D Segmentation of Neurites in EM Images"
Name of the conference: IEEE International Symposium on Biomedical Imaging
Corresponding author: Yes
City of event: San Francisco, CA, United States of America
Date of event: 07/04/2013

End date: 08/04/2013
Organising entity: Institute of Electrical and Electronics Engineers **Type of entity:** Foundation
City organizing entity: New York City, United States of America
Ignacio Arganda Carreras; Ashwin Vishwanathan; Daniel R. Berger; H. Sebastian Seung. "ISBI challenge: "3D Segmentation of Neurites in EM Images"".

27 **Title of the work:** STP tomography-based mapping of the complete brain circuit mediating social behavior in the mouse
Name of the conference: Neuroscience 2012
City of event: New Orleans, United States of America
Date of event: 13/11/2012
End date: 17/11/2012
Organising entity: Society for Neuroscience **Type of entity:** Associations and Groups
City organizing entity: United States of America
Yongsoo Kim; Kannan Umadevi Venkataraju; Kith Pradhan; Srinivas C. Turaga; Ignacio Arganda-Carreras; Lydia Ng; Michael J. Hawrylycz; H. Sebastian Seung; Pavel Osten. "STP tomography-based mapping of the complete brain circuit mediating social behavior in the mouse".

28 **Title of the work:** EM segmentation challenge
Name of the conference: Scaling up EM connectomics
Corresponding author: Yes
City of event: Ashburn, VA, United States of America
Date of event: 11/11/2012
End date: 11/11/2012
Organising entity: Howard Hughes Medical Institute **Type of entity:** Foundation
Ignacio Arganda Carreras. "EM segmentation challenge".

29 **Title of the work:** ISBI challenge: "Segmentation of neuronal structures in EM stacks"
Name of the conference: IEEE International Symposium on Biomedical Imaging
Corresponding author: Yes
City of event: Barcelona, Catalonia, Spain
Date of event: 01/05/2012
End date: 02/05/2012
Organising entity: Institute of Electrical and Electronics Engineers **Type of entity:** Foundation
City organizing entity: New York City, United States of America
Ignacio Arganda Carreras; Albert Cardona; Johannes Schindelin; H. Sebastian Seung. "ISBI challenge: "Segmentation of neuronal structures in EM stacks"".

30 **Title of the work:** Machine learning-based cell counting in the mouse brain using serial two-photon tomography
Name of the conference: Neuroscience 2011
City of event: Washington DC, United States of America
Date of event: 12/11/2011
End date: 16/11/2011
Organising entity: Society for Neuroscience **Type of entity:** Associations and Groups
City organizing entity: United States of America
Kannan Umadevi Venkataraju; Ignacio Arganda-Carreras; Keerthi Krishnan; Z. Josh Huang; H. Sebastian Seung; Pavel Osten. "Machine learning-based cell counting in the mouse brain using serial two-photon tomography".

31 **Title of the work:** Quantitative mapping of neural circuits in the mouse brain using serial two-photon tomography
Name of the conference: Neuroscience 2011
City of event: Washington DC, United States of America
Date of event: 12/11/2011
End date: 16/11/2011
Organising entity: Society for Neuroscience **Type of entity:** Associations and Groups
City organizing entity: United States of America
Kannan Umadevi Venkataraju; Ignacio Arganda-Carreras; Lolahon R. Kadiri; Naoki Takada; H. Sebastian Seung; Pavel Osten. "Quantitative mapping of neural circuits in the mouse brain using serial two-photon tomography".

32 **Title of the work:** 3D-2P microscopy of c-fos expression: A high-throughput method to study neural circuit functions in the mouse brain
Name of the conference: 40th annual meeting Neuroscience 2010
City of event: San Diego, United States of America
Date of event: 13/11/2010
End date: 17/11/2010
Organising entity: Society for Neuroscience **Type of entity:** Associations and Groups
City organizing entity: United States of America
Kannan Umadevi Venkataraju; Ignacio Arganda-Carreras; Julian Taranda; Yongsoo Kim; Karsten Bahlmann; Timothy Ragan; H. Sebastian Seung; Pavel Osten. "3D-2P microscopy of c-fos expression: A high-throughput method to study neural circuit functions in the mouse brain".

33 **Title of the work:** Three-dimensional two-photon (3D-2P) microscopy for fluorescent mouse brain
Name of the conference: 40th annual meeting Neuroscience 2010
City of event: San Diego, United States of America
Date of event: 13/11/2010
End date: 17/11/2010
Organising entity: Society for Neuroscience **Type of entity:** Associations and Groups
City organizing entity: United States of America
Karsten Bahlmann; Timothy Ragan; Ignacio Arganda-Carreras; Kannan Umadevi Venkataraju; Julian Taranda; Lolahon R. Kadiri; H. Sebastian Seung; Pavel Osten. "Three-dimensional two-photon (3D-2P) microscopy for fluorescent mouse brain".

34 **Title of the work:** Automatic Consistent Registration Framework for temporal pairs of mamogram: In application to breast cancer risk assessment due to HRT (Hormone Replacement Therapy)
Name of the conference: 11th International Workshop on Computer-Aided Diagnosis
City of event: Berlin, Germany
Date of event: 24/06/2009
End date: 27/06/2009
Gopal Karemore; Ignacio Arganda-Carreras; Nielsen Mads. "Automatic Consistent Registration Framework for temporal pairs of mamogram: In application to breast cancer risk assessment due to HRT (Hormone Replacement Therapy)".

35 **Title of the work:** bUnwarpJ: Consistent and Elastic Registration in ImageJ. Methods and Applications.
Name of the conference: ImageJ User & Developer Conference
City of event: Luxembourg, Luxembourg
Date of event: 06/11/2008
End date: 07/11/2008
Organising entity: Centre de Recherche Public Henri Tudor **Type of entity:** University Research Institute

City organizing entity: Luxembourg, Luxembourg
Ignacio Arganda-Carreras; Carlos Ortiz-de-Solorzano; Jan Kybic. "bUnwarpJ: Consistent and Elastic Registration in ImageJ. Methods and Applications.".

36 **Title of the work:** Consistent and elastic registration of histological sections using vector-spline regularization
Name of the conference: Computer Vision Approaches to Medical Image Analysis
City of event: Graz, Austria
Date of event: 12/05/2006
End date: 12/05/2006
Ignacio Arganda-Carreras; Carlos O. S. Sorzano; Roberto Marabini; Jose Maria Carazo; Carlos Ortiz-de-Solorzano; Jan Kybic. "Consistent and elastic registration of histological sections using vector-spline regularization".

37 **Title of the work:** Skeleton-based 3D Reconstruction Of Histological Sections
Name of the conference: MediVis05, Biomedical Visualization
City of event: London, United Kingdom
Date of event: 06/07/2005
End date: 08/07/2005
Ignacio Arganda-Carreras; Carlos O. S. Sorzano; Roberto Marabini; Jose Maria Carazo; Carlos Carlos Ortiz-de-Solorzano. "Skeleton-based 3D Reconstruction Of Histological Sections".

38 **Title of the work:** Automatic registration of serial mammary gland sections
Name of the conference: Engineering in Medicine and Biology Society, 2004. IEMBS '04
City of event: San Francisco, United States of America
Date of event: 01/09/2004
End date: 05/09/2004
Ignacio Arganda-Carreras; Rodrigo Fernandez-Gonzalez; Carlos Ortiz-de-Solorzano. "Automatic registration of serial mammary gland sections".

39 **Title of the work:** Automatic registration of mammary gland section images
Name of the conference: First International Meeting on Applied Physics (APHYS2003)
City of event: Badajoz, Extremadura, Spain
Date of event: 13/10/2003
End date: 18/10/2003
Ignacio Arganda-Carreras; Rodrigo Fernandez-Gonzalez; Carlos Ortiz-de-Solorzano. "Automatic registration of mammary gland section images".

R&D management and participation in scientific committees

Scientific, technical and/or assessment committees

Committee title: Bio Imaging and Signal Processing Technical Committee
Primary (UNESCO code): 330000 - Technological Science.
Secondary (UNESCO code): 240000 - Life Science
Affiliation entity: IEEE
Start-End date: 01/01/2017 - 31/12/2019

R&D management

1 **Name of the activity:** Director of the master on Computational Engineering and Intelligent Systems
Type of management: Management of body
Performed tasks: Head of the master
Entity: Universidad del País Vasco **Type of entity:** University
Start date: 01/09/2024

2 **Name of the activity:** Board member of the master on Computational Engineering and Intelligent Systems
Performed tasks: Academic committee activities
Entity: Universidad del País Vasco **Type of entity:** University
Start date: 01/04/2020 **Duration:** 4 years - 5 months

Other achievements

Stays in public or private R&D centres

1 **Entity:** Universidad de Navarra **Type of entity:** University
Faculty, institute or centre: Centro de Investigacion Medica Aplicada
City of entity: Navarra, Foral Community of Navarre, Spain
Start-End date: 02/07/2006 - 22/09/2006 **Duration:** 3 months
Goals of the stay: Doctorate

2 **Entity:** Centre for Machine Perception **Type of entity:** University
Faculty, institute or centre: Czech Technical University
City of entity: Praga, Praha, Czech Republic
Start-End date: 22/07/2005 - 16/10/2005 **Duration:** 3 months
Goals of the stay: Doctorate

3 **Entity:** Lawrence Berkeley National Laboratory **Type of entity:** University Research Institute
City of entity: Berkeley, United States of America
Start-End date: 18/09/2002 - 08/09/2004 **Duration:** 13 months
Goals of the stay: Doctorate

Obtained grants and scholarships

1 **Name of the grant:** Beca de Formacion de Personal Investigador FPI-CAM
Aims: Pre-doctoral
Awarding entity: Comunidad de Madrid **Type of entity:** Comunidad autonoma
Conferral date: 01/10/2003 **Duration:** 4 years
End date: 30/09/2007

2 **Name of the grant:** Ayuda para estudiantes de tercer ciclo de la UAM
Aims: Research project for last year students
Awarding entity: Universidad Autónoma de Madrid **Type of entity:** University
Conferral date: 01/10/2001 **Duration:** 9 months
End date: 30/06/2002

Prizes, mentions and distinctions

1 **Description:** Doctor Europeus mention
Awarding entity: Universidad Autónoma de Madrid **Type of entity:** University
Conferral date: 26/06/2009

2 **Description:** Premio Extraordinario de Doctorado
Awarding entity: Universidad Autónoma de Madrid **Type of entity:** University
Conferral date: 26/06/2009