

Part A. PERSONAL INFORMATION			CV date		07-10-2020
First and Family name	Antoni Jaume i Capó				
Social Security, Passport, ID number	43103829	Age	41		
Researcher codes	WoS Researcher ID (*)	I-4053-2015			
	SCOPUS Author ID (*)	24512130000			
	Open Researcher and Contributor ID (ORCID) **	0000-0003-3312-5347			

(*) At least one of these is mandatory. (**) Mandatory.

A.1. Current position

Name of University/Institution	University of the Balearic Islands		
Department	Department of Mathematics and Computer Science		
Address and Country	E07122, Palma, Illes Balears, Spain		
Phone number	971173245	E-mail	antoni.jaume@uib.es
Current position	Associate Professor	From	19/03/2019
Key words	Artificial Intelligence, Computer Vision, Vision-based Interaction, Medical Image Processing, Motor Rehabilitation, Diagnostic Support		

A.2. Education

PhD	University	Year
PhD in Computer Science with European mention	University of the Balearic Islands	2009

A.3. JCR articles, h Index, thesis supervised...

20 JCR articles (5 Q1, 7 Q2, 4 Q3, 4 Q4).

2 research sexennium (01/01/2008-31/12/2013, 01/01/2014-31/12/2019).

2 Supervised PhD (plus 1 in progress).

Total cites: 474 (Google Scholar), 263 (Scopus), 161 (WoS)

Average year cites from 2015: 69 (Google Scholar), 33.8 (Scopus), 24.2 (WoS)

h-index: 12 (Google Scholar), 8 (Scopus), 7 (WoS)

i10 index: 13 (Google Scholar)

Two research prizes.

Principal Investigator of 11 projects. Total funding 248759.64€

Part B. CV SUMMARY

I started my research and teaching career in 2004 and I received PhD in Computer Engineering with European mention in 2009. My research line is focused on artificial intelligence, concretely vision-based systems for motor rehabilitation and for medical image analysis. I am associate professor at the University of the Balearic Islands.

In relation to the proposed *Artificial Intelligence Institute* and its goals, I have an extensive experience in artificial intelligence systems for health and well-being, concretely in vision-based interactive systems for postural control and balance rehabilitation, and in microscopic image analysis for diagnostic support using computer vision.

In relation to my research, I have edited 2 research books, I am author of 20 JCR articles, 9 SJR articles, and 4 technical reports. I have also been editor of 2 special issues, I have participated in 13 congresses, and I have been invited keynote speaker in 7 conferences. I have participated in 29 research projects (4 EU, 20 nationals, 6 regionals) and in 11 of them I have been the principal investigator. I have 5 technological transfers with companies and 2

datasets. I did 8 research stages in international centers. I supervised 2 PhD and at this moment I am supervising 1 more. I have also supervised 7 foreigners doctorate students, 6 master's thesis and 13 grade theses. I received the best communication award at ENACTIVE 2005. I assisted a 44 congresses and conference, and I have been reviewer for 16 journals and conferences. I have obtained 1 research sexennium, the research supplement and the research excellence supplement.

In relation to my teaching, I have taught more than 1400 teaching hours in Grades, 200 in Masters and Post grades, 286 in international PhDs and Post grades, and more than 800 teaching hours in companies and institutions. I have been Principal Investigator (PI) in 4 projects of teaching innovation, and I have participated in others 16 as a researcher. I have published my teaching innovation results in 3 journals and 13 conferences, and I have received the best award paper in JENUI 2010. Moreover, I have assisted at 315 hours of teaching innovation courses. I have been member of 57 panels of Grade and Master Thesis. I have supervised 10 collaborators students, 8 exchange agreements, and I am author of 9 teaching materials. I have obtained 2 teaching quinquenniums and the teaching supplement.

In relation to management and representation, I am in charge of the Degree in Computer Engineering at the University of the Balearic Islands. I have participated at the organization of 23 research activities. I disseminated my research in 44 participation in media (tv, radio, newspapers) and in 46 general public activities.

Part C. RELEVANT MERITS

C.1. Publications

Petrović, N., Moyà-Alcover, G., Jaume-i-Capó, A., & González-Hidalgo, M. (2020). Sick-cell disease diagnosis support selecting the most appropriate machine learning method: Towards a general and interpretable approach for cell morphology analysis from microscopy images. *Computers in Biology and Medicine*. (indexed in JCR). *Accepted*.

Petrović, N., Moya-Alcover, G., Varona, J., & Jaume-i-Capó, A. (2020). Crowdsourcing human-based computation for medical image analysis: A systematic literature review. *Health Informatics Journal*. (indexed in JCR).

Delgado-Font, W., Escobedo-Nicot, M., González-Hidalgo, M., Herold-Garcia, S., Jaume-i-Capó, A., Mir, A. (2019). Diagnosis Support of Sick Cell Anemia by Classifying Red Blood Cell Shape in Peripheral Blood Images. *Medical & Biological Engineering & Computing*. (indexed in JCR).

Ayed, I., Ghazel, A., Jaume-i-Capó, A., Moya-Alcover, G., Varona, J., & Martínez-Bueso, P. (2019). Vision-Based Serious Games and Virtual Reality Systems for Motor Rehabilitation: A Review Geared Toward a Research Methodology. *International journal of medical informatics*. (indexed in JCR).

Ayed, I., Ghazel, A., Jaume-i-Capó, A., Moya-Alcover, G., Varona, J., & Martínez-Bueso, P. (2018). Feasibility of Kinect-Based Games for Balance Rehabilitation: A Case Study. *Journal of healthcare engineering*. (indexed in JCR).

Amengual, E., Jaume-i-Capó, A., & Moya-Alcover, B. (2018). PROGame: A process framework for serious game development for motor rehabilitation therapy. *PloS one*. (indexed in JCR).

Moyà-Alcover, G., Elgammal, A., Jaume-i-Capó, A., & Varona, J. (2017). Modeling depth for nonparametric foreground segmentation using RGBD devices. *Pattern Recognition Letters*. (indexed in JCR).

Ayed, I., Moyà-Alcover, B., Martínez-Bueso, P., Varona, J., Ghazel, A., & Jaume-i-Capó, A. (2017). Validation of RGBD devices for balance clinical measurement: The functional reach test with Microsoft Kinect. *RIAI*, 14(1). (indexed in JCR).

Guerrero, C., Jaume-i-Capó, A., Juiz, C., & Lera, I. (2016). Use of Mobile Devices in the Classroom to Increase Motivation and Participation of Engineering University Students. *IEEE Latin America Transactions*. (indexed in JCR).

González-Hidalgo, M., Guerrero-Pena, F. A., Herold-Garcia, S., Jaume-i-Capó, A., & Marrero-Fernandez, P. D. (2015). Red blood cell cluster separation from digital images for use in sickle cell disease. *IEEE journal of biomedical and health informatics*. (indexed in JCR).

C.2. Research projects and grants

PID2019-104829RA-I00, EXPLAINING - EXPLainable Artificial INtelligence systems for health and well-beING. Ministerio de Ciencia e Innovación. PI Antoni Jaume-i-Capó & Cristina Manresa-Yee. (University of the Balearic Islands). AEI. 87967€

CA19130 - Fintech and Artificial Intelligence in Finance - Towards a transparent financial industry. European Union. 14/09/2020-13/09/2024. Researcher.

CA19122 - European Network For Gender Balance in Informatics. European Union. 19/10/2020-18/10/2024. Researcher.

PROCOE/2/2017, Investigación y desarrollo de un nuevo método y herramienta de procesamiento automático de imágenes en el ámbito clínico. Govern de les Illes Balears. PI Gabriel Moyà-Alcover (University of the Balearic Islands). 22/12/2017- 22/12/2020. 37422€. Researcher.

TIN2016-81143-R, MAISIE - Evaluación implícita de sistemas interactivos en contextos de salud y bienestar. Ministerio de Economía y Competitividad (MINECO). PI: Javier Varona (University of the Balearic Islands) 30/12/2016-29/06/2020. 107085€. Researcher.

OCDS-CUD2017/05, people4sicklemlia II - herramienta web para que los internautas cooperen en el diagnóstico de la sicklemia. Govern de les Illes Balears. PI: Antoni Jaume-i-Capó (University of the Balearic Islands). 30/09/2017-30/09/2018. 8022.64€

OCDS-CUD2016/01, people4sicklemlia - herramienta web para que los internautas cooperen en el diagnóstico de la sicklemia. Govern de les Illes Balears. PI: Antoni Jaume-i-Capó (University of the Balearic Islands). 30/09/2016-30/09/2017. 4950€

CA15124, NEUBIAS - A new Network of European BioImage Analysts to advance life science imaging. European Union. PI: Julien Colombelli (IRB Barcelona) 30/05/2016-02/05/2020. Researcher.

OCDS-CUD2015/02, LEARNING-4-SICKLEMIA: Técnicas de procesamiento y análisis de imágenes como apoyo en el diagnóstico de la sicklemia y los trastornos neurofisiológicos asociados, formación avanzada. Govern de les Illes Balears. PI: Antoni Jaume-i-Capó (University of the Balearic Islands). 30/09/2015-30/09/2016. 8800€

TD1309, LUDI - Play for Children With Disabilities. European Union. PI: Serenella Besio (Università della Valle d'Aosta) 19/05/2014-18/05/2018. Researcher.

TIN2012-35427, EXIT - Experiencias de diseño y desarrollo de interfaces naturales en industria, educación y rehabilitación. Ministerio de Economía y Competitividad (MINECO). PI: Javier Varona (University of the Balearic Islands). 01/01/2013-31/12/2016. 22230€. Researcher.

C.3. Contracts

Development of a new system with cybersecurity technologies for the management and control of information through massive data processing. PI: Antoni Jaume-i-Capó (University of the Balearic Islands). F-Iniciativas I+D+i, S.L. 15/05/2019-31/05/2019. 1452€.

Consultancy on a research project for the evaluation of the onychomycosis nail PI: Antoni Jaume-i-Capó (University of the Balearic Islands). Syntax for Science S.L. 10/02/2017-30/07/2017. 10890€.

GSM Dataset (<http://gsm.uib.es/>). Coordinator Gabriel Moyà-Alcover (University of the Balearic Islands). 21/09/2016-currently. Transferred to 8 research centers.

Dataset erythrocytesIDB (<http://erythrocytesidb.uib.es>). Coordinator: Antoni Jaume-i-Capó (University of the Balearic Islands). 01/10/2014-currently. Transferred to 21 research centers.

Technological Transfer. Transfer of a game to prevent and mitigate the degradation of balance and postural control to ABDEM. AN 9918/2011.15/07/2013-15/07/2019. PI: Antoni Jaume-i-Capó.

Technological Transfer. Transfer of a game to prevent and mitigate the degradation of balance and postural control to ASPACE. AN 9918/2011.15/07/2013-15/07/2019. PI: Antoni Jaume-i-Capó.

C.4. PhD Supervision

Scene Modelling for visio-based interactive systems in rehabilitations contexts. Author: Gabriel Moyà Alcover (University of the Balearic Islands). 22/09/2016. International PhD.

Interactive therapeutic systems for fall prevention using computer vision technologies.. Author: Inês Ayed (University of the Balearic Islands – Sup'Com). 27/01/2020. International PhD. Excellent Cum Laudem

Machine learning and Human-based Interfaces for Medical Images Analysis. Author: Natasa Petrovic (University of the Balearic Islands – Belgrade University). In progress. International PhD.

C.5. Other Merits

Journal Reviewer: Sensors, Research in Delevomental Disabilities, IEEE Transactions on Neural Systems & Rehabilitation Engineering, Interacting with Computers, International Journal of Environmental Research and Public Health. Projects Reviewer of de IWT (the government agency for Innovation by Science and Technology. Belgium).

Research stages: Adetti (POR), University Bretagne-Sud (FR), University of Belgrade (RS), Universidad de la Habana (CU), Masaryk University (CR), Glyndwr University (UK), Manchester Metropolitan University (UK), Sup'Com (TN)