



CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION		CV date	2024
First name	Marta		
Family name	Arguedas Lafuente		
Gender (*)	Female	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail		URL Web	
Open Research and Contributor ID (ORCID)(*)	0000-0002-6609-122X		
Telephone:			

(*) *Mandatory*

A.1. Current position

Position	Associate
Initial date	2024
Institution	Escola Universitària d'Informàtica Tomàs Cerdà

Position	Junior Researcher		
Initial date	02/01/2024		
Institution	Fundació Universitat Oberta De Catalunya		
Departament/Center	SMARTLEARN / ICSO Research Group / IN3		
Country	Spain	Teleph. number	
Key words	Artificial Intelligence, Emotional Intelligent, Affective Computing		

A.2. Previous positions (research activity interruptions, art. 45.2.c))

Period	Position/Institution/Country/Interruption cause
2020 - 2021	Junior Researcher / Teking Research Group / Fundació Universitat Oberta De Catalunya / Spain
2019 - 2019	Lecturer Professor / Escuela Universitaria Politécnica de Teruel / Spain
2018 - 2019	Researcher / Cima, Nuevas Tecnologías Informaticas, S.L

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Bachelor degree in Technical Engineering in Computer Systems	La Almunia Polytechnic University School	October 1997
Master in Multimedia Applications	Open University of Catalonia	June 2011
Master in Education and ICT (e-learning).	Open University of Catalonia	July 2015
PhD in Education and ICT (eLearning)	Open University of Catalonia	November 2016

A.4. General Quality indicators of scientific research

ID's		
ORCID ID: 0000-0002-6609-122X	Scopus ID: 55877154600	Researcher ID: A-7844-2018
Google Scholar:	Scopus:	
Cites 279; Index h=9; Index i10=9;	18 Documents by author; 128 Citations by 109 documents; h-index: 8;	

Periods of research activity

Positive assessment of the research activity carried out during the years 2015-2016-2017-2018-2019-2020 (6 years) by the specific Commission for the Accreditation of Research in the field of Engineering and Architecture of the Agency for the Quality of the University System of Catalonia.

Experience in supervising doctoral theses

PhD Student: Emmanouil Mavrelou

Title: "Discovering the relationship of Neuroscience with Waldorf-Steiner pedagogy through the Theory of Multiple Intelligences"

Universidad del Egeo - **Ongoing**

PhD Student: Elissavet Gkimitzoudi

Title: “Exploring the relationship between Waldorf-Steiner pedagogy, neuroeducation and socio-emotional intelligence to define a new teacher role in preschool education”

PhD Program In Information And Knowledge Society (Uoc) - **Ongoing**

PhD Student: Stephanie García Senin

Title: “Design and implementation of innovative curriculum integrating neurosciences with innovative ict teaching in stem disciplines”

PhD in Education and ICT (eLearning) (eLearn Center - UOC) – **Ongoing**

PhD Student: Elvis G. Ortega Ochoa

Title: “Agente Conversacional Pedagógico para la tutoría en el desarrollo de proyectos”

PhD in Education and ICT (eLearning) (eLearn Center - UOC) – **Ongoing**

Part B. CV SUMMARY (max. 5000 characters, including spaces)

(1) I defended my thesis on November 17, 2016 obtaining a grade of Outstanding with Cum Laude and International Mention, as well as a prize for the best thesis of the academic year 2016-17 in November 2017 from the eLearn Center.

(2) Two international stays in a research center of the University of Guadalajara in Mexico, with a total duration of more than three months, during the years 2015 and 2016. The research effort was mainly focused on the definition, implementation, and refinement of an ontological scheme that allows the automatic management of emotions in students, as well as the production of the corresponding feedback, based on the construction of a multilayer and multidimensional model to capture and treat emotions automatically.

(3) Due to the quality of the tools developed in the two research stays and their application in fields other than e-learning, two international patents obtained in my name: (a) NEUROEMOSYS: Construction of a multilayer and multidimensional model to automatically capture and process emotions. The source for this model is data mining on texts in order to get emotion indicators. These indicators feed an inference machine that automatically produces feedback suggestions to learners in an ICT-supported learning environment. (b) FUZZYEMOSYS: Construction of a fuzzy logic model to provide a qualitative classification scheme for numerical indicators. This model is composed of a series of systems for mining and tagging text from conversations that take place during the collaboration.

(4) Nineteen (19) highly qualified research papers. Of these, five (10) were published in JCR journals. One (1) article was published in a journal edited by the UOC's eLearn Center and one (1) as an international book chapter. Finally, six (7) articles were published in International Conferences peer-review. The presentation of my research at the various national and international meetings has always received very positive comments from colleagues and researchers.

(5) I have also had the opportunity to participate as researcher in several research projects in research centers such as ITAINNOVA of Zaragoza (Spain), universities such as the Universitat Oberta de Catalunya (Barcelona, Spain) and Centro Universitario de Ciencias Exactas e Ingenierías (CUCEI) of the University of Guadalajara, Jalisco, Mexico and researcher in private companies such as CIMANTI, S.L. of Navarra (Spain).

(6) Likewise, my research work has been developed during this time by collaborating with the ICSO group. This collaboration has been carried out without any kind of commercial or labour link with the UOC. The ICSO group, in which I will belong if the result of this application is favorable, has already obtained results. These results have been applied in the DSLab tool, which is used in a subject of the computing and telecommunication degree.

(7) Moreover, new research work has been produced in collaboration with Dr. Atanasi Daradoumis regarding Affective Pedagogical Agents.

In short, the current work will be integrated into one of the research areas of the ICSO group, recognized by the IN3. In the group has started a doctoral student who will also work on and involve exploring the use of bot to improve learning. Currently, there is a first implementation of a chatbot

that proposes a new design and implementation as support in the practice of the Distributed Systems subject.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

- Marquès Puig, J. M., Daradoumis, T., Arguedas, M., & Calvet Liñan, L. (2021). Using a distributed systems laboratory to facilitate students' cognitive, metacognitive and critical thinking strategy use. *Journal of Computer Assisted Learning*. [indexed in SCIE/SSCI IF = 3.862, Citaciones:0, Q1]
- Marquès, J. M., Calvet, L., Arguedas, M., Daradoumis, T. & Mor, E. (2021): Using a Notification, Recommendation and Monitoring System to Improve Interaction in an Automated Assessment Tool: An Analysis of Students' Perceptions, *International Journal of Human-Computer Interaction*, <https://doi.org/10.1080/10447318.2021.1938400>. [indexed in SCIE/SSCI IF = 3.353, Citaciones:1, Q2]
- Arguedas, M. & Daradoumis, T. (2021). Analyzing the role of a pedagogical agent in psychological and cognitive preparatory activities. *Journal of Computer Assisted Learning*, DOI: <https://doi.org/10.1111/jcal.12556>. [indexed in SCIE/SSCI IF = 3.862, Citaciones:0, Q1]
- Daradoumis, T., Marquès, J. M., Arguedas, M. & Calvet, L. (2021). A distributed systems laboratory that helps students accomplish their assignments through self-regulation of behavior. *Educational Technology Research and Development*. <https://doi.org/10.1007/s11423-021-09975-6>. [indexed in SCIE/SSCI IF = 3.565, Citaciones:0, Q1]
- Daradoumis, T., & Arguedas, M. (2020). Cultivating Students' Reflective Learning in Metacognitive Activities through an Affective Pedagogical Agent. *Educational Technology & Society*, 23 (2), 19–31. [indexed in SCIE/SSCI IF = 3.522, Citaciones: 1, Q1]
- Marquès, J. M., Daradoumis, T., Calvet, L., & Arguedas, M. (2020). Fruitful Student Interactions and Perceived Learning Improvement in DSLab: a Dynamic Assessment Tool for Distributed Programming. *British Journal of Educational Technology*, 51(1), 53–70. doi:10.1111/bjet.12756. [indexed in SCIE/SSCI IF = 4.929, Citaciones:0, Q1]
- Daradoumis, T., Marquès, J. M., Arguedas, M. & Calvet, L. (2019). Analyzing students' perceptions to improve the design of an automated assessment tool in online distributed programming. *Computers & Education*, 128, 159-170. ISSN: 0360-1315. Elsevier. doi:10.1016/j.compedu.2018.09.021.[indexed in SCIE/SSCI IF = 5.296, Citaciones:15, Q1]
- Arguedas, M., Xhafa, F., Casillas, L., Daradoumis, T., Peña, A. and Caballé, S. (2018). A model for providing emotion awareness and feedback using fuzzy logic in online learning. *Soft Computing*, 22(3), 963–977. ISSN: 1432-7643. Springer. DOI 10.1007/s00500-016-2399-0. <http://rdcu.be/w2W9>. [indexed in SCIE/SSCI IF = 2.784, Citaciones:6, Q2]
- Arguedas, M., Daradoumis, T. and Xhafa, F. (2016). Analyzing the effects of emotion management on time and self-management in computer-based learning. *Computers in Human Behavior (CHB)*, 63, 517-529. ISSN: 0747-5632. Elsevier, doi: 10.1016/j.chb.2016.05.068, October 2016. [indexed in SCIE/SSCI IF = 3.435, Citaciones:11, Q1]
- Arguedas, M., Daradoumis, T. and Xhafa, F. (2016). Analyzing how emotion awareness influences students' motivation, engagement, self-regulation and learning outcome. *Educational Technology & Society, Special Issue on "Intelligent and Affective Learning Environments: New Trends and Challenges"*, ISSN: 1176-3647, 19 (2), 87-103. [indexed in SCIE/SSCI IF = 1.584, Citaciones:26, Q2]

C.2. Congress

- del Carmen Rodríguez-Hernández, M., de la Vega Rodríguez-Chamarro, M., Vea-Murguía Merck, J. I., Ballano, Á. E., Lafuente, M. A., & del Hoyo-Alonso, R. (2020, April). MotorIA: Automatic E-Learning Course Generation System. In *Proceedings of the 2020 6th International Conference on Computer and Technology Applications* (pp. 92-96).
- Senin, S. G., Arguedas, M., & Daradoumis, T. (2019). Transformación pedagógica y uso de tabletas digitales: reflexión sobre el proceso en el aula de secundaria. In *VI Jornadas Iberoamericanas de*

Innovación Educativa en ámbito de las TIC y de las TAC: Las Palmas de Grana Canaria, 14 y 15 de noviembre de 2019 (pp. 13-20). Universidad de Las Palmas de Gran Canaria.

- Arguedas, M., Casillas, L., Xhafa, F., Daradoumis, T., Peña, A. and Caballé, S. (2016). Classifying students' emotional states in online collaborative work using fuzzy logic. In proceedings of the 10th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS-2016), Fukuoka, Japan, July 6-8, 2016, IEEE Computer Society, Los Alamitos, CA, USA. In press.
- Arguedas, M., Xhafa, F., Daradoumis, T. and Caballé, S. (2015). An Ontology about Emotion Awareness and Affective Feedback in E-learning. In proceedings of the 7th IEEE International Conference on Intelligent Networking and Collaborative Systems (INCoS 2015), Taipei, Taiwan. September 2-4, 2015. IEEE Computer Society, Los Alamitos, CA, USA. DOI 10.1109/INCoS.2015.78, ISBN: 978-1-4673-7695-2, pp. 156-163.
- Arguedas, M., Daradoumis, T. and Xhafa, F. (2014). Towards an Emotion Labeling Model to Detect Emotions in Educational Discourse. In proceedings of the 8th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS-2014), Birmingham, UK, July 2-4, 2014, IEEE Computer Society, Los Alamitos, CA, USA. DOI 10.1109/CISIS.2014.36, ISBN: 978-1-4799-4325-8, pp. 72-78.
- Daradoumis, T., Arguedas, M. and Xhafa, F. (2013). Building Intelligent Emotion Awareness for Improving Collaborative e-Learning. In proceedings of the 5th IEEE International Conference on Intelligent Networking and Collaborative Systems (INCoS 2013), September 9-11, 2013, Xi'an, China, IEEE Computer Society, Los Alamitos, CA, USA. DOI: 10.1109/INCoS.2013.49, ISBN: 978-0-7695-4988-0. pp. 281 - 288.
- Daradoumis, T., Arguedas, M. and Xhafa, F. (2013). Current Trends in Emotional e-Learning: New Perspectives for Enhancing Emotional Intelligence. In proceedings of the 7th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS-2013), Taichung, Taiwan, July 3-5, 2013, IEEE Computer Society, Los Alamitos, CA, USA. DOI: 10.1109/CISIS.2013.16, ISBN: 978-0-7695-4992-7, pp. 34-39.

C.3. Research projects

(1) Project: **SMART-TRAINING**.

Reference Code: 0011-1365-2018-000289

Main Researcher (IP, Co-IP ...): Alfaro, Alberto

Entity: CIMA, NUEVAS TECNOLOG.INFORMATICAS, S.L

Start-End date: 01/03/18 - 31/12/2019.

(2) Project: **Análisis Automático del Estado Afectivo de Usuario**.

Reference Code: 238448

Main Researcher (IP, Co-IP,...): Peña Pérez Negrón, Adriana

Entity: Centro Universitario de Ciencias Exactas e Ingenierias (CUCEI). Universidad de Guadalajara(UdG), Jalisco, Mexico

Start-End date: 01/08/2016 - 31/07/2018.

C.4. Contracts, technological or transfer merits (Activities of technology / knowledge transfer and results exploitation)

Industrial and intellectual property

(1) **Title registered industrial property: FUZZYEMOSYS**

Inventors/authors/obtainers: Marta Arguedas Lafuente Entity holder of rights: Marta Arguedas Lafuente

Nº of application: TXu 1-997-006

Country of inscription: United States of America

Date of register: 16/03/2016

Conferral date: 16/03/2016

Operating aut.region/region: International

(2) **Title registered industrial property: NEUROEMOSYS**

Inventors/authors/obtainers: Marta Arguedas Lafuente Entity holder of rights: Marta Arguedas Lafuente

Nº of application: TXu 1-997-004

Country of inscription: United States of America

Date of register: 16/03/2016

Conferral date: 16/03/2016

Operating aut.region/region: International