

María Alfaro Contreras

COMPUTER SCIENCE PHD STUDENT | FPU PREDOCTORAL RESEARCHER

✉ malfaro@disi.ua.es  mariaalfaroc  María Alfaro-Contreras

Education

University of Alicante

PhD in Computer Science

Oct. 2020 – Present

- Spanish Ministry of Universities FPU Grant (FPU19/04957)
- Research line: (Multimodal) Audio and Image Music Transcription

University of Alicante

MSc in Telecommunication Engineering, 9.54/10

Sept. 2018 – July 2020

- 7 distinctions, one of them in the end-of-master project
- Best academic record of my class

University of Alicante

Degree in Sound and Image in Telecommunication Engineering, 9.11/10

Sept. 2014 – July 2018

- 21 distinctions, one of them in the end-of-degree project
- Best academic record of my class

Experience

Department of Software and Computing Systems, University of Alicante

FPU Predoctoral Researcher

Oct. 2020 – Present

- Teaching work experience
Digital Sound Synthesis in Degree in Sound and Image in Telecommunication Engineering
Courses 2021-2022, 2020-2021
- Supervision of end-of-degree projects

Research Initiation Grant

Jan. 2019 – July 2020

Collaboration Grant

Nov. 2017 – June 2018

Student Intern in the Pattern Recognition and Artificial Intelligence Group

Sept. 2017 – Dec. 2017

Music Encoding Conference 2021

Part of the Local Organizing Committee

July 2021

- Facilities and materials preparation
- Attention to the attendees
- Technical and scientific supervision

Skills

Programming

Python, LaTeX, C, C++, MATLAB

Languages

Spanish (mother tongue), English (C1 Advance CAE), French (notions)

Awards

Extraordinary prize of master for best academic record

Nov. 2020

Second place in the engineering and architecture area of the XVIII National “Certamen Universitario Arquímedes” awards

Nov. 2019

Extraordinary prize of degree in the “Capitanía General de Valencia” awards

June 2019

Best end-of-degree project in the “Cátedra Santander-UA de Transformación Digital” awards

June 2019

Best academic record of the Polytechnic School in the University of Alicante in the “Consejo Social” awards *Apr. 2019*

Third place in the sound and image engineering category of the “Futuro de las Telecomunicaciones” COITT awards *Dec. 2018*

“Caja de Ingenieros” award to the best tech academic record of the Polytechnic School in the University of Alicante *Nov. 2018*

Extraordinary prize of degree for best academic record *Nov. 2018*

Publications

Conferences and journals

Alfaro-Contreras, M., Rizo, D., Iñesta, J.M., Calvo-Zaragoza, J., 2021. OMR-assisted transcription: a case study with early prints, in: International Society for Music Information Retrieval Conference, ISMIR, Online. pp. 35-41.

Mas-Candela, E., **Alfaro-Contreras, M.**, Calvo-Zaragoza, J., 2021. Sequential Next-Symbol Prediction for Optical Music Recognition, in: Internal Conference on Document Analysis and Recognition, ICDAR, Lausanne, Switzerland. pp. 708-722.

Alfaro-Contreras, M., Valero-Mas, J.J., 2021. Exploiting the Two-Dimensional Nature of Agnostic Music Notation for Neural Optical Music Recognition. Applied Sciences 11, 3621.

Alfaro-Contreras, M., Calvo-Zaragoza, J., Iñesta, J.M., 2019. Approaching end-to-end optical music recognition for homophonic scores, in: Iberian Conference on Pattern Recognition and Image Analysis, IbPRIA, Madrid, Spain. pp. 147-158.

Alfaro-Contreras, M., Calvo-Zaragoza, J., Iñesta, J.M., Rizo, D., 2019. On the Impact of the Music Encoding for Optical Music Recognition, in: Music Encoding Conference, Vienna, Austria.

Workshops and demonstrations

De la Fuente, C., Valero-Mas, J.J., Castellanos, F.J., Calvo-Zaragoza, J., **Alfaro-Contreras, M.**, Iñesta, J.M., 2021. Multimodal Audio and Image Music Transcription. Late-breaking demo at the 22nd International Society for Music Information Retrieval Conference, ISMIR, Online.

Alfaro-Contreras, M., Valero-Mas, J.J., Iñesta, J.M., 2021. Neural architectures for exploiting the components of Agnostic Music Notation in Optical Music Recognition, in: International Workshop on Reading Music Systems, WoRMS, Alicante, Spain. pp 33-37.

Technical reports (non-peer reviewed)

De la Fuente, C., Valero-Mas, J.J., Castellanos, F.J., Calvo-Zaragoza, J., **Alfaro-Contreras, M.**, Iñesta, J.M., 2021. Multimodal Audio and Image Music Transcription. Late-breaking demo at the 22nd International Society for Music Information Retrieval Conference, ISMIR, Online.

Alfaro-Contreras, M., Valero-Mas, J.J., Iñesta, J.M., 2021. Neural architectures for exploiting the components of Agnostic Music Notation in Optical Music Recognition, in: International Workshop on Reading Music Systems, WoRMS, Alicante, Spain. pp 33-37.