

Marc Siquier Peñafort

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Audiovisual Systems Engineer (ETSETB, Telecom-BCN, UPC). MSc on Sound and Music Computing (MTG-UPF). Working as R&D Software Engineer at Meridian Audio Ltd.
Passionate about technology and music.

Work Experience

Meridian Audio Ltd.

R&D Software Engineer

Huntingdon, United Kingdom

February 2018 – Present

Working alongside software and R&D engineers in the R&D department, in order to maintain and develop the whole software ecosystem, from the embedded software host to the actual DSP code. Developing and implementing audio algorithms and DSP code for both for Meridian Core products and for collaborative LG Electronics products .

Barcelona Supercomputing Center, BSC-CNS

Developer

Barcelona, Spain

April 2015 – December 2017

Working at the Computer Science - Storage Systems department, on the European IOStack project. The main objective of IOStack was to enable a Software-defined Storage toolkit for Big Data on top of the Open-stack platform.

AMES - Sintered Metallic Components

Application programmer

Barcelona, Spain

November 2014 – February 2015

Programming of an application designed for classification of metal sintered pieces as a quality system (based on their vibration spectrum).

University Education

Universitat Pompeu Fabra - UPF

MSc on Sound and Music Computing

Barcelona, Spain

2016 – 2017

This program trains the students on the technologies for the analysis, description, synthesis, transformation and production of sound and music, and on the technologies and processes that support sound and music creation.

- **Master's Thesis:** *'Computational modeling of expressive music performance in hexaphonic guitar'* [link]

In this master thesis, supervised by Sergio Giraldo, I developed a machine learning approach to automatically generate expressive music performances from non-expressive music scores of polyphonic guitar, treating guitar as an hexaphonic instrument.

Universitat Politècnica de Catalunya - ETSETB TelecomBCN

University Degree on Audiovisual Systems Engineering

Barcelona, Spain

2010 – 2015

Fundamentals and applications of audio, video and multimedia systems and acquisition techniques for the analysis and synthesis of electrical and electronic circuits and digital and analogue communications. Specialization in acoustics and sound systems, digital signal processing, communication systems, electronic equipment and devices and multimedia techniques.

- o **Degree's final project:** 'Query by Singing/Humming (Android App)' [link]

Education

Colegio San Cayetano <i>Primary and Secondary studies</i>	Palma, Spain 1996 – 2010
Conservatori Professional de Música i Dansa de Mallorca <i>Elementary Grade of violin</i>	Palma, Spain 2000 – 2004
Conservatori Professional de Música i Dansa de Mallorca <i>Middle Grade of violin</i>	Palma, Spain 2004 – 2010

Publications

- o R.Nou, A.Miranda, M.Siquier, T.Cortes. Improving OpenStack Swift interaction with the I/O Stack to enable Software Defined Storage. *IEEE SC2-2017. The 7th IEEE International Symposium on Cloud and Service Computing*, Kanazawa, Japan, November 2017. [link]
- o M.Siquier, S.Giraldo, R.Ramírez. Computational modelling of expressive music performance in hexaphonic guitar. *Proc. of the 10th International Workshop of Machine learning and music*, Barcelona, Spain, October 2017. [link]

Technical and Personal skills

Languages: Catalan (mother tongue), Spanish (mother tongue), English (Cambridge Certificate in Advance English, June 2015).

Driving License: EU Car Driving license

Programming Languages: Proficient in: C, C++, Python, Matlab, Java, Assembly, TeX
Also medium ability with: JavaScript, XML, HTML, SQL, Android SDK, PureData.

Technical skills: DSP, sound and music processing, Machine Learning, Pattern Recognition, Acoustics, Bio-metrics, Modeling, Unix systems, Music recording, Music production, Version Control.

On-line Courses.....

Audio Coding: Beyond MP3 <i>Universitat Politècnica de València</i>	edX September 2017
Machine Learning for musicians and artists <i>Goldsmiths University of London</i>	Kadenze June 2017
Audio Signal Processing For Music Applications <i>Universitat Pompeu Fabra & Stanford University</i>	Coursera September 2016
Machine Learning <i>Stanford University</i>	Coursera June 2016