GUILLEM CORTÈS SEBASTIÀ

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BMAT & Music Technology Group MTG @UPF, Barcelona

Research Engineer (PhD candidate)

Working on Audio Fingerprinting within the NextCore project

School of Informatics | University of Edinburgh, Edinburgh 07/2020

01/2020 Research Assistant

Working with Barry Haddow studying the robustness of end-to-end speech translation systems. Thesis link. Tools: Python, PyTorch, Git, bash

BMAT Music Licensing S.L., Barcelona 01/2020

03/2018 **Charts Software Developer**

> Developing the BMAT's Charts web app. Tools: Python, Django, SQL, docker, Git, bash, html, css, JS

02/2018 Telefónica I+D, Barcelona

05/2017 Research Assistant

> Working with Jordi Luque developing a biometric authentication system based on PPG signal by using CNNs and embedding it into a prototype. Further information in my thesis. Tools: Python, Keras, Tensorflow, data science toolkits, bash

GCEM Laboratory | UPC, Barcelona 09/2015

09/2014 **Laboratory Technician**

Certifying electronic devices according to the standards and legislation. Tools: LabView

2018

26th European Signal Processing Conference 2018, Rome

EUSIPCO accepted paper

"End-to-end Photoplethysmography (PPG) Based Biometric Authentication by Using Convolutional Neural Networks"

Abbey Road Hackathon 2018, London

Chirp challenge winner article







2018

Universitat Politècnica de Catalunya, Barcelona

09/2020 Master's in Advanced Telecommunication Technologies 09/2018 (Deep Learning for Multimedia Processing) site

07/2018 Telecommunications Technologies and Services Engineering 09/2013 (major in Audiovisual Systems)

Escola de Música Creu Alta, Sabadell 09/2019

09/2007 **Professional Grade in Classical Guitar**



























Enalish Catalan 100 TOEFL (C2 equivalent) Native

Spanish Native

































Voluntary work

2016

With the *Menos Cabeza Más Corazón* Team I have carried out three voluntary works that have taken me to live and enjoy the most extreme sport competitions over the world. In all of these races, we were under huge pressure since at the end of the day, we had to have all necessary images recorded (with its back up) and the video resume of each stage uploaded to *Youtube*.

- · Ultra Sierra Nevada 2016: SOY MONTAÑA | Valentí Sanjuan
- · Powerade MTB series non-stop Madrid-Lisboa 2016: MADRID LISBOA 2016 | Valentí Sanjuan
- · Titan Tropic Cuba by GAES 2016

2020

Voluntariat per la Llengua, a program to practice Catalan through conversation.



Hobbies

I play the guitar since I was 11 and now I'm starting to produce my own music. I also do sport regularly; I really love jogging in the woods. I think it is the perfect way to find inspiration, take a deep breath and inspire pure air. Lover of music and photography since I can remember. I like new technologies and everything related to its future upcoming, obviously.



About me

I love music, I really do. I've been playing the guitar and studying music for 14 years now and I always thank that 11 years old kid, for making the decision to start learning how to play the classical guitar. On the other hand, I've studied Telecommunications engineering and I'm about to finish a Master's in Artificial Intelligence, so some could say I have an artistic-scientific mind. Hope this means that I have the best of both worlds.

Even though I really like computers and signals, I always knew that my passion is music. So let's imagine for a moment the day I was in a Signal Processing lecture, and the concept of *Octave* appeared. Immediately after that, I automatically pictured a Venn diagram of Passion (music) and Profession (telecom. engineer) and in the middle of the intersection, my future.

Since then, I completed my undergrad and I am about to finish my MSc. I find it worth mentioning that when I had to choose which master's to do, I had a big dilemma. I had to choose between the Master in Sound and Music Computing and the MATT. I chose the latter because I felt that it was better to study the application of AI in all kind of signals and I thought that I could always specialize in a specific area later on.

Now that I'm at the University of Edinburgh – working in my MSc thesis with the best people in Europe in Machine Translation – I'm sure that I want to be a researcher and, if possible, a music researcher. In fact, I contacted Prof. Xavier Serra a month ago or so asking for a PhD positions.

What makes me think that I'm a good candidate for this position is the combination of the following:

- 1. Music and Technology Background
- 2. Experience in Research
- 3. Experience in Software Development at BMAT
- 4. Having things done mentality (EUSIPCO paper, Abbey Road Hackathon prize)

Even though it may seem that I do not have a lot of experience in music computing, I have done some things in the field, like a music genre classifier we did as a final project of the Speech and Language Processing with Deep Learning subject. You can read the report <u>here</u>.

I have more things to say that I would love to talk about in person (through videoconference, these days). Many thanks for your time.