Daniel Torres Cirina

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Education

Barcelona, Spain — **Facultat d'Informàtica de Barcelona, Universitat Politècnica de Catalunya** — **Sep 2014 - July 2021**

- Bachelor's degree in Informatics Engineering. Major in Computing. Average grade: 6.86 (*distance learning*), 6.04 (*total*)

With a final thesis titled "Automatic Detection of Endangered Species in Aerial Images using Deep Learning". Which was a continuation of the publicly available work done in a final thesis for a Master's Degree in Physics Engineering. (My thesis defence presentation)

Employment

Data Developer — DERIVCO SPORTS proudly powering betway — **Sep 2021 - Present**

- Transform raw data into useful data systems, create systems to transform, store, combine data from different sources and deliver data across multiple platforms.
- Maintain, bug fix, develop and enhance existing software such as online applications for multiple desktop, mobile and tablet platforms.
- Collaboratively work with other teams to ensure continuous, resilient and performant data platforms.

Teaching Assistant — **Private Tutoring Lessons, El Maresme** — **Sep 2019 - Jun 2020**

- Teaching in English classes for children aged 12-16. In order to introduce new vocabulary I: presented programming concepts in English to Spanish students, created small problems which require basic data structure to solve them, helped the students address them, encouraged debating in English and explained the solution.

Self-employed, Advertising Startup — Pulp ConX — **Feb 2017 - Dec 2019**

- Used **Python 3**, **Selenium WebDriver** and **C++** programs to develop scraping tools and a bot network.
- Adapted the tools and the network to work on two browsers (Chrome & Firefox) and two operating systems (**Linux** & **Windows**).
- Used innovative **behavioural techniques** to advertise promotional offers through Facebook.
- The network was also used to launch a YouTube channel and massively increase the number of views for selected videos in specific geographic locations and social networks. Getting as far as being featured in Time Magazine.

Software Developer — **CaminsTECH, ETSECCPB** — **Oct 2018 - May 2019**

- Continued the development of an **Arduino** and **Raspberry Pi** project using **C++** and **Python 3**.
- Assessed and improved its performance.
- Deployed a system which helped measure structural damages in buildings using an **LVDT** (an electromechanical device used to convert mechanical motion or vibrations, specifically rectilinear motion, into a variable electrical current, voltage or electric signals and the reverse) and a **micrometer** (a device that incorporates a calibrated screw).
- Example on how I tried to classify the noise present in the measurements when putting the LVDT on a wall crack with **pandas**, **NumPy** and **Matplotlib** for data visualisation.

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Certifications & Courses

Azure Fundamentals (AZ-900) **Microsoft** **Nov 2021**

- This course provided the foundational knowledge of cloud services and how those services are provided with Microsoft Azure.
- It introduced knowledge of cloud concepts, Azure services, Azure workloads, security and privacy in Azure, as well as Azure pricing and support. It also imparted familiarity with the general technology concepts, including concepts of networking, storage, compute, application support, and application development.

Machine Learning **Coursera** **Aug 2018**

- This course provided a broad introduction to machine learning, datamining, and statistical pattern recognition.
- Topics included: (i) Supervised learning (parametric/non-parametric algorithms, support vector machines, kernels, neural networks). (ii) Unsupervised learning (clustering, dimensionality reduction, recommender systems, deep learning). (iii) Best practices in machine learning (bias/variance theory; innovation process in machine learning and AI).

Programming Languages **FIB, UPC** **May 2020**

- The course gave an overview of programming languages (**Haskell**, **Python 3**, Tcl, Ruby, ...), as well as a brief introduction to compilers.
- It presented in more detail **functional languages** and its use to introduce new elements of programming languages, such as type systems or higher-order programming.
- In the GitHub repository there are available: (i) small Haskell programs which aimed at developing basic operations with the language and (ii) a **Python 3** & **Telegram** project.

Volunteer Experience

Software Developer **Fundació La Marató de TV3** **Dec 2019**

Minority diseases are very rare pathologies that affect a maximum of 5 people per 10,000. Currently, there are about 7,000 described and about 80% are of genetic origin. The 2019 edition of La Marató de TV3 and Catalunya Radio was centred on this subject and in order to help raise funds and awareness I participated next to two colleagues in the solidarity Hackaton #bitsxlaMarató where creativity, health and technology were combined.
We donated, encouraged others to do it and during the 60 hour hackathon developed a Knowledge Based Systems (SBC) with C++ and CLIPS. The system would focus on the needs of those who are under medical treatment since literature can help them cope with the illness and they can benefit the most from the use of fiction novels. The system makes book recommendations suitable for the user, given their personal profile and the information that has been obtained from their interaction with the system.

Skills

Python • OOP • Machine Learning • TensorFlow • Market Research • C++ • MATLAB • Selenium WebDriver • SQL • Oracle • Bash • Elasticsearch • Testing • Java

Languages

Spanish (Native), **Catalan** (Native or bilingual proficiency), **English** (Full professional proficiency, C1 Cambridge English Certificate), **French** (B1 inlingua International Ltd Certificate), **Italian** (Elementary proficiency), **Portuguese** (Elementary proficiency) and **Swedish** (Elementary proficiency).