

Work Experience

Software Engineer & Data Scientist

CST International - Dublin, Ireland

08.2015 – Now

- Design and development of an event-driven data processing system with AWS: server-less application with **AWS Lambda** (python), **DynamoDB** and **S3**.
- Data cleaning & analysis (both **Python** and **R**): EDA & Hypothesis testing.
- Web Development (HTML, CSS, JS, D3.js, Google Visualization, Bootstrap) & testing (Selenium python scripts).
- Backend python development with python (**Web2py**, **AWS Lambda + API Gateway**).
- Skill set: python, R, SQL, JavaScript, HTML, CSS, git, jQuery, Bootstrap, D3.js, C3.js, pytest

Software Engineer (Intern)

Carlos III University of Madrid - Madrid, Spain

12.2013 – 06.2014

- I led the design and development of a native **Android** app (**Java**) for Bultaco Motors through a RD project with Carlos III University of Madrid.
- Main development: GPS navigation app (based on OsmAnd) with real-time collection & display of telemetry data (**Bluetooth**). Full development of a **Machine Learning** system (ANN/MLP) in Java aiming to predict viability of unknown routes based on historic data. Information retrieval from **SOAP** (IIS Server).
- Others: **MVC**, **git** (GitHub, Bitbucket, git-flow), **Kanban** methodology for project management.

Education

Data Analyst Nanodegree

Udacity (online)

04.2015 – Now

Built by industry and project-based curriculum for becoming a Data Analysis / Scientist.
<https://www.udacity.com/course/data-analyst-nanodegree--nd002>

Telecommunications Engineering (5 years degree, BSc+MSc, NFQ Level 8)

Carlos III University of Madrid - Madrid, Spain

09.2008 – 09.2014

Top 15%. Main Coursework: Computer Science, Digital Signal Processing, Electronics, Communication Systems, Networking, Statistics. **Final Year Project distinction with Honours:** *Range Estimation System for Electric Vehicles with Artificial Neural Networks*, available here (in spanish): <http://dsaiztc.com/PFC.pdf>

Other Technical Experience

Data Wrangling OpenStreetMaps Data

Data Analyst Nanodegree Project. Udacity (online)

06.2015

Use data munging techniques to clean OpenStreetMap data, converting it from XML to JSON format, importing the clean file into a MongoDB database and run some queries against it. <http://dsaiztc.com/OSMDataWrangling/>

Analyzing the NYC Subway Dataset

Data Analyst Nanodegree Project. Udacity (online)

05.2015

Statistical analysis of NYC Subway data. Looking for data trends with different analysis: statistical (regression analysis, hypothesis testing), raw data and visualizations. CSV data analyzed with different *python* data-analysis tools (*pandas*, *stats*, *matplotlib*, *ggplot*). <http://dsaiztc.com/NYCSubwayAnalysis/>

Secret Santa Android App

11.2014 – 12.2014

Native Android application for making Secret Santa draws (<http://dsaiztc.com/secretsanta>). >15000 downloads.
Skills: Java, Android, SQL, UI/UX, HTML, Google Play Store.

Languages, Libraries and Technologies

★★★ Python, SQL | ★★ R, Java, Matlab | ★ HTML, CSS, JavaScript
★★★ boto3, pytest, beautifulsoup, ggplot2, tidyr, dplyr | ★★ jQuery, pandas, matplotlib, | ★ D3.js, pymongo
★★★ git, REST, MySQL, DynamoDB, S3, AWS Lambda, Web2py | ★★ UNIX, AWS | ★ Vue.js, GAE, Android