Eric Alcaide

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Skills

Multi-langauge coding
Python, Bash, Julia, JavaScript, C++, Web

Scientific Computing
Scientific Python, Julia, Bash

Problem Solving
Initiative, Creativity, Originality

Cloud Computing
AWS, Google Cloud

Fast Prototyping

Public Speaking

Machine & Deep Learning
computer vision, sequence analysis, classification, clustering, sentiment, regression, adversarial attacks, search methods...

Teamwork
adaptability to different organizations and team structures

Projects

2017 – 2019 **Open Source Projects**
Created several projects and modules for scientific computing which recieved a high degree of community acceptance:
- **2019**: **MiniFold** ⧉ **:** Predict protein foldings from raw sequences (AlphaFold imitation).
- **2018**: **Keras-WRN** ⧉ : A package of Wide Residual Networks for image recognition in Keras.
- **2018**: **SearchMethods.jl** ⧉ : The Julia package for Search Methods algorithms.
- **2017**: **Pysimplechain** ⧉ : Python implementation of a blockchain in less than 200 lines of code.

2017 – 2018 **AI Research Paper,** *E-swish: Adjusting Activations to Different Network Depths* ⧉
PrePrint proposing a new activation function called E-Swish which showed state of the art results in several computer vision benchmarks.

2017 – 2017 **Deep Learning – Can Computers learn?** ⧉
Research project focused on the AI and Deep Learning field, subfields and the state of the art techniques.
- Exploration of usage of Evolutionary Strategies for architecture optimization in Neural Networks.

Professional Experience

2019 – 2020 **Machine Learning Instructor,** *Private Tutor*
Given personalized advice and taught Masters' students from different backgrounds (from Computational Linguistics to Biomedical Engineering) different topics: generally speaking about Data Science, AI and ML, and specifically about Text Classification, Image processing and Information representation.

Successfully advised how to carry out Masters' Thesis-level projects.

2019 – 2019 Barcelona, Spain	**AI & ML Mentor,** *NonProfit Hackathon for Medicine: BitsXlaMarató* Advised and assisted different teams during the development of healthcare and scientific solutions with a strong algorithmic component. Performed genomic analyses, clustering, HPC (high performance computing) and data visualizations of complex information. Won several prizes.
2018 – 2019 Spain, Switzerland, USA	**Developer,** *Several Hackathons* Got awarded projects on 3 out of 4 hackathons during the past two years: an API for mobility data, a decentralized publishing platform and an AI system for psychiatric patients' follow-up. Hackathon names: Som Hackathon, HackUPC2017 and HealthHackathon Esade.
2017 – 2017 Spain	**Data Analyst,** *Nexow Systems* Applied Deep Learning models to market data analysis, characterization and prediction during the summer internship.

Education

2018 – present	**Medicine,** *University of Barcelona* Exceptional student with multiple distinctions.
2016 – 2018	**High School,** *Pare Manyanet Les Corts, Barcelona* Graduated with Honours - 99.5% Participated in the Debates club, got seleted for Physics and Chemistry olympiads, scored top 1% of my region in Cangur (Mathematics contest) and recieved a honorific mention from a EU translate contest.
2017 – 2017	**Artificial Intelligence,** *Columbia University* Master's Level Course on Artificial Intelligence (edx.org): Applying key concepts of classic AI and Machine Learning to both classic and real problems such as games and sentiment analysis.

Courses

2020 – 2020	**HPC-based Computational Biomedicine,** *Barcelona Spercomputing Centre* Impact and Hands-on experience of applied supercomputing to biomedical problems (molecular simulations, genomic analysis, tissue modelling...)
2017 – 2017	**Deep Learning Specialization,** *Coursera* Learned about the foundations of DeepLearning, how to structure projects, computer vision, and sequential data.

Languages

Spanish
Native

English
C2 level

German
A2

Catalan
Native