# 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 simple 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

**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

09/2020 – present

**Physics,** *University of Barcelona*
Currently studying. Theoretical Physics Degree

2018 – present

**Medicine,** *University of Barcelona*
Currently studying. 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*

**Catalan**
*Native*

**English**
*C2 level*

**German**
*A2*

**Mandarin**