

Aritz Lizoain

Date of Birth: 19.12.1998

Nationality: Spanish

E-mail: lizoain.ac@gmail.com

Phone number: (+41) 77 991 82 14



EDUCATION

2016 - 2020 **Universidad de Cantabria (UC)**

Santander, Spain

Bachelor of Science in Physics

Relevant courses: Advanced Computation, Programming, Numerical Methods, Laboratory Computational Tools, Advanced Experimental Techniques (with honors), Ordinary and Partial Differential Equations, Linear Algebra, Differential and Integral Calculus.

Relevant topics: Data processing, numerical analysis, object-oriented programming, probability and statistics, software development.

2018 - 2019 **Universität Zürich (UZH) / Erasmus+**

Zürich, Switzerland

Bachelor of Science in Physics

Relevant courses: Statistical Mechanics and Molecular Simulations.

EXPERIENCE & PROJECTS

CNN Image segmentation

Duration: 7 months

- Initiated a deep learning implementation focused on dark matter searches.
- Developed a multi-class image segmentation software.
- Pre-processed simulated and real data.
- Built and optimized neural network structures and parameters.
- Strengthened practical machine learning knowledge training and evaluating models.
- Employed numerous Python packages: TensorFlow, Keras, scikit-learn, OpenCV-Python, scikit-image, Pandas, NumPy, Matplotlib.
- As a result of the obtained exceptional results, earned the opportunity to contribute in the 'DarkMachines' collaboration.

MD simulation

Duration: 5 months

- Designed and developed a molecular dynamics software in Java, obtaining an outstanding grade in the Advanced Computation course.
- Gained insight in software modeling (UML), computational complexity and algorithmic efficiency.
- Focused on specific customer needs: experience, modularity and performance.
- Established excellent group communication and organization.

TECHNICAL SKILLS

- Python
- Java
- MATLAB
- SQL
- Wolfram Mathematica

LANGUAGES

- Spanish (native)
- Basque (native)
- English (advanced C1)
- French (intermediate B1)

INTERESTS

- Reinforcement learning (RL)
- Mobile app development
- Algorithmic trading