Arianna Alonso Bizzi

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EDUCATION

University of Pennsylvania, School of Engineering & Applied Science, Philadelphia, PA   *2024 - 2026*
Master's in Electrical Engineering, Thouron Scholar.
Engineering Entrepreneurship 2025 Fellow: 1 of 12 students selected for work-study program in tech venture leadership.

Imperial College, London, UK.   *2020 - 2024*
Master's of Science in Physics. Thesis applying Physics to Neuro-robotics.
Grade: First Class Honors.

RELEVANT AWARDS & INITIATIVES

UPenn Thouron Scholarship, Founder of First Neurotech Society in the UK, Cambridge University Nanofutures Scholarship, ETH Zurich Amgen Biotech Scholarship, Selected for Entrepreneur First's Future48 Hackathon team, Founder of GNN student initiative

EXPERIENCE

Sysmex Corporation | *Surgical Robotics Intern*, Kobe, Japan   *June 2024 – August 2024*
- Prototyped robotic components and built a robotic simulation pipeline using Python, C and RoboDK
- Created and presented a strategy plan for the company's entry into nanorobotics
- Analysis and design of computer vision/virtual reality mask for the surgical robot.

Institute of Neuroinformatics, ETH Zurich | *Neuromorphics Researcher,* Zurich, Switzerland   *June 2023 – September 2023*
- Developed a spiking neural network algorithm to learn the relationship between EMG and finger force
- Designed, implemented, tested, and 3D printed glove to measure finger force with microcontroller.

Neuroengineering Lab, EPFL | *Robotics and ML Researcher*, Lausanne, Switzerland   *October 2022 – June 2023*
- Programmed a computer vision pipeline to go from real-time pose-tracking to a physics-based simulation
- GNN-based neural controller based on the biological neural connectome to model motion control (Pytorch).

Nanoscience Center, Cambridge University | *Quantum Matter & Automation Intern*, Cambridge, UK   *June 2022 – August 2022*
- Designed and built parts for cryostats, conducted experiments and created a LabVIEW interface for the machines
- Helped automate superconductor testing by prototyping a remotely-controlled micromanipulator.

Brain and Behaviour Lab, Imperial College | *Robotics & Prosthetics Intern*, London, UK   *March 2022 – June 2022*
- Optimising experiments to test gaze-based prosthetics for patients with motor-neuron impairments

Lazard Asset Management | *Financial analyst intern*, London, UK   *June 2020 – July 2020*
- Market analysis, with focus on sustainability and building smart cities.

KEY PROJECTS

Fall Detection IMU Wearable Pitch | Entrepreneur First Future48 Female Founders Event   *Spring 2024*
- Project proposal, market & strategy analysis for a low-cost solution to track gait patterns and mitigate falls in the elderly

Graded 1st for RUMbot, 3D Geomapping robot   *Fall 2024*
- Market proposal report and project development. Skills: Microcontrollers, Computer Vision, Solidworks, Robotics

1st Place in 2023 BRAIN Hackathon   *Fall 2023*
- Optimising pre-processing, feature extraction and classification of an ECoG data-set
- Computer vision to correlate this to epilepsy patient's surroundings to identify triggers.

Brain-ChatGPT Interface with EEG and fNIRS   *Fall 2023*
- Unicorn BCI, fNIRS data and programming software. Tkinter interface with OpenAI's GPT model

1st Place EPFL Data Science Hackathon   *Spring 2023*
- ML and Spectral analysis for music and speech recognition

OTHER

Languages: English (Native), Italian (Native), Spanish (Native), French (Fluent).
Sporting achievements: 1st place Strait of Messina open-water swim 2022, 1st place in 2022 London Triathlon Sprint, National-level cross-country, winning team in the 2020 England Schools' National, 2nd Place San Sebastian Olympic Distance triathlon 2019.
Extra-curriculars: EPFL's Improv Crew, Imperial College Funkology Dance crew, ICL Physics band, Roman Amphitheatre of Imola website manager, Represented Institute of Neuroinformatics at Switzerland's Largest outreach event (Scientifica).