Adrian Fernandez Cuevas

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EXPERIENCE

Cosmelectric SRL April 2025 – July 2025
Intern *Santo Domingo, Dominican Republic*
- Learned the basics of **PLC programming** for **Allen Bradley** and **ABB** controllers.
- Built simple electrical panels for teaching purposes.

Universidad Carlos III de Madrid September 2024 – December 2024
Research Assistant, Department of Bioengineering *Leganes, Spain*
- Designed and implemented models to enhance segmentation accuracy in lung nodule detection using **deep learning** and **computer vision**.
- Developed **YOLO** and **Unet** models, researched novel architectures using **PyTorch** on **GPU clusters**.
- Improved segmentation accuracy over **SOTA**, contributing to advancements in **medical imaging** research.

Tecnun University of Navarra February 2024 – June 2024
Bachelor Thesis *San Sebastian, Spain*
- Engineered an **AI model** for classifying cervical cytology samples with limited labeled data using **weak supervision** and **multiple instance learning**.
- Researched, collected data, and developed a **ResNet CNN** with a **RNN** in **PyTorch**.
- Achieved **97% accuracy** and a **98% F1 score**, demonstrating the model's effectiveness in **digital pathology**.

Fundación Vicomtech June 2023 – August 2023
Intern *San Sebastian, Spain*
- Created an interactive **data visualization dashboard** using **Python** to analyze **cancer patient data**.
- Built a **Streamlit web app**, fixed **frontend bugs**, and provided support for the **Cancer Survivor Smart Card** project.
- Enhanced usability of the **web scraper**, improved **data processing** pipelines, and optimized **data analytics workflows**.

Tecnun eRacing August 2023 – August 2024
Formula Student, Head of Race Engineering *San Sebastian, Spain*
- Led the **race engineering** team and managed **on-track activities** to optimize **vehicle performance** using **data analysis**.
- Supervised a **3-person team**, created **Jupyter Notebook reports**, and utilized **MATLAB** for car data analysis.
- Secured **5th place (2023) and 2nd place (2024)** at the **Barcelona-Catalunya circuit**, contributing to the team's best results.

Donostia University Hospital January 2023 – May 2023
Externship *San Sebastian, Spain*
- Conducted **hospital rotations** in **Interventional Radiology, General Surgery, Otorhinolaryngology, and Nephrology**, gaining insights into **medical products** and challenges faced by doctors.
- Participated in **practical anatomy** lessons, performing **basic surgery** with donor pigs and utilizing **medical simulators**.
- Collaborated with classmates to propose the use of **Computer Vision** for **diagnosing lung cancer**, showcasing innovation and problem-solving skills.

PROJECTS

CAF Machine Learning Challenge   **April 2023 – May 2023**
- Developed a **machine learning model** to detect **defects in railway tracks** using **sensor data**.
- Implemented a **supervised classification model** using a **Gaussian kernel SVM** in **MATLAB**.
- Won **first place** with an **F1 score of 97%** on the test set, demonstrating expertise in **data science** and **predictive modeling**.

Hackathon Cree Banreservas   **April 2025**
- Developed a business idea for a startup alongside 4 other participants.
- Won **first place** with **DominGo**, a platform for discovering touristic experiences in the Dominican Republic.
- Enrolled in a **mentorship program** for further development of the business model.

EDUCATION

Tecnun University of Navarra   **September 2020 – June 2024**
Bachelor's Degree in Biomedical Engineering   *San Sebastian, Spain*
- Class representative

SKILLS

Python, MATLAB, R, SQL, C++, Git, Microsoft Office, Mathematics and Statistics. **Languages**: English (C2), Spanish