Alejandro Ponce Fernández

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Education

Purdue University *August 2025 – Present*
- (Exchange) Relevant Courses: Data Science Capstone, Applied Algorithms

University Carlos III de Madrid *Sept 2021 – Present*
Dual Bachelor in Data Science and Engineering and Telecommunication Technologies Engineering
- GPA 8.0/10.0 and Honors: Predictive Modeling, Advanced Knowledge of Spreadsheets
- Relevant Courses: Machine Learning I, Machine Learning II, Predictive Modeling, Statistical Learning, Statistical Signal Processing, Machine Learning Applications

Nanyang Technological University *August 2023 – June 2024*
- (Exchange) Relevant Courses: Neural Networks and Deep Learning, Basic Optimization, Big Data Management, Robotics

Mirabal International School *September 2019 - May 2021*
Diploma Program - International Baccalaureate
- First in Class (Grade 44/45) View article ☑ High Level Courses: Mathematics AA, Phyiscs and English B

Experience

Data Science Intern *Barcelona, Spain*
Dow Jones *June 2025 – August 2025*
- Evaluated model performance in text summarization for the Wall Street Journal and proposed a new approach that reduced length errors by 10x.
- Backtested and researched a strategy for the WSJ+ recommender system to mitigate contradictory information in fast-decay articles by combining metadata with a Zero-Shot classifier.
- Contributed to the development of chatbot tools using a LangGraph agent to retrieve real-time stock information, and implemented automated testing with LangSmith.
- Co-authored official documentation for the Data Science team and the Tech Hub.

Data Management Technician *Madrid, Spain (Remote)*
Kaptiva Sports *June 2024 – June 2025*
- Proposed, designed, and implemented a real-time integration pipeline between Cvent and Airtable using REST APIs, Webhooks, and AWS services to enable seamless and automated data flow.
- Managed a database of over 100,000 clients and 1,000+ events in Cvent, ensuring data accuracy and integrity.
- Developed 10+ internal event management apps using Softr, integrated with AirTable, and enhanced with custom Java, CSS, and HTML for advanced functionality.
- Automated the generation of weekly sales reports using Python, providing visual insights for data analysis.

Projects

NLP-Driven Clustering Regression on Job Postings *Github-Link* ☑
- Processed and analyzed thousands of job postings using LDA, clustering, and Sentence-BERT/Doc2Vec–based salary prediction, achieving strong results despite sparse salary data.

Gender and Age Clasification usign CNNs *Github-Link* ☑
- Designed and trained from scratch 10+ CNN models, which obtained 90%+ accuracy when predicting age and gender in the Adience dataset.

Technologies & Skills

Languages: Spanish (Native), English (Cambridge Proficiency C2, TOEFL 110/120), French (Basic)

Programming Languages: Python, JavaScript, R, MATLAB, SQL, C, VHDL

Frameworks & Libraries: TensorFlow, PyTorch, Keras, scikit-learn, XGBoost, Pandas, NumPy, LangChain, LangGraph

Databases: SQL, PostgreSQL, MySQL, BigQuery, Airtable

Cloud Platforms: AWS (Lambda, S3, EC2), Google Cloud Platform (BigQuery, AI/ML Services)

Tools & DevOps: Git, Docker, Jira, Softr, Office 365, REST APIs, Webhooks

Concepts & Methodologies: ETL, Data Pipelines, Automated Testing, CI/CD, Agile/Scrum, Prompt Engineering

Soft Skills: Teamwork, Leadership, Public Speaking, Presentation Skills, Cross-Cultural Communication, Problem-Solving, Time Management, International Volunteering