Javier Domínguez Segura

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Work Permits (if applicable and advantageous) | Eligible to sign an internship agreement via IE University

EDUCATION BACKGROUND

IE University   **Madrid, Spain**
Bachelor of Science **in Computer Science & Artificial Intelligence,**   *Expected: July 2027*
- GPA: 96.3/100 (Top of class, Dean's List)
- Relevant Coursework:
    o   Machine Learning & AI: ML Fundamentals (A+, hons), AI Fundamentals (A+), Natural Language Processing (in progress), Computer Vision (in progress), Reinforcement Learning (in progress)
    o   Mathematics: Linear Algebra (A+), Probability for CS (A+), Calculus II (A+), Discrete Math (A), Physics (A)
    o   Software Engineering: Databases (A+, hons), OS & Networks (A), Computer Architecture, C Programming (A+, hons), Data Structures & Algorithms (A-), DevOps (in progress), High-Performance Computing (in progress)
    o   Business & Entrepreneurship: Intro to Business Management (A+, hons), Entrepreneurship (A+)

PROFESSIONAL EXPERIENCE

Kronos Technology - *Full Stack App*   **Gran Canaria, Spain**
Co-founder / Lead developer   *January 2022 - November 2023*
- Designed and deployed a production-ready booking platform used by multiple businesses, enabling thousands of monthly reservations and reducing manual scheduling effort by 40%.
- Built with Python (FastAPI), MySQL, Redis, firebase (auth and analytics), Stripe (payment) and deployed on AWS with CI/CD

STRIDE Research Labs, U.S. NSF Program - *HPC & AI Lab*   **Madrid, Spain**
Research Intern   *Summer 2025 - Present*
- Designing HPC middleware for agent-based workflows on NCSA Delta supercomputers through NSF's ACCESS program. Partnering with the RADICAL research lab at Rutgers University on the Integrated Machine-learning for Protein Structures at Scale (IMPRESS) project.

PROJECTS

Flowgentic — HPC Agentic Framework Integration (Github) | Summer 2025 - Present
- Built open-source Python package enabling agent frameworks (LangGraph, CrewAI, AG2) to run on HPC schedulers with minimal code changes, designed for developer ergonomics and production workflows.
- Integrated LangGraph with RADICAL AsyncFlow for concurrent agent execution; actively used by researchers at Rutgers University for the IMPRESS project (protein structure ML at scale on NCSA Delta supercomputers). Developed during NSF-funded research at STRIDE Research Labs

Efficient Classifier — Open-Source ML Framework | [PyPI/GitHub link] | Spring 2025
- Developed a dataset-agnostic machine learning framework for rapid prototyping and deployment of classification pipelines on tabular data.
- Achieved 92% F1-score on CCCS-CIC-AndMal-2020 (Android malware detection, 50K+ samples), outperforming baseline approaches by 10% for certain models.

AWARDS & HONORS

EduCaixa The Challenge – Finalist in international research competition (<0.02% acceptance) to conduct big data research on high-school dropout rates. Presented findings in Silicon Valley with workshops by Google, and Apple employees and Stanford students. (source)
IE Entrepreneurship Award – Merit-based college scholarship awarded to students with outstanding entrepreneurial potential.
Dean's List, School Of Science & Technology— Recognized for top academic performance across multiple semesters (source).

ACTIVITIES & LEADERSHIP

IE Student Government,   **Madrid, Spain**
Class representative   *September 2023 – Present*
- Elected to represent and advocate for the academic needs of 100+ Computer Science students to university administration and faculty.
- Drove curriculum adjustments and influenced resource allocation decisions by synthesizing complex student feedback and presenting data-backed proposals to stakeholders.
- Successfully negotiated for the implementation of new academic resources, directly improving the educational experience for the entire cohort.

ADDITIONAL INFORMATION

- **Languages: Spanish** (Native). **English** (Fluent, 3 years, daily use). **German** (Intermediate).
- **Technologies & Tools:** Python, SQL, Pandas, Numpy, Scikit-learn, Pytorch, Hugging Face, Langraph, Apache Spark, BigQuery
- **Personal interests:** poker, history books, basketball, triathlon