Guido Biosca Lasa

Computer Engineering student

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SUMMARY

Computer Engineering student with strong background in algorithms, data structures, and problem-solving, with experience in graph theory, heuristic search, and real-time data systems. Interested in competitive programming and mathematical problem solving.
Hands-on experience building data pipelines, real-time monitoring systems, and agent-style workflows integrating APIs, alerts, and decision logic, with growing exposure to applied AI and LLM-based agents.
Highly curious and motivated to learn across domains, comfortable in fast-paced environments, and driven by taking ownership and building reliable, impactful solutions.

EXPERIENCE

Multiverse Computing 01/2026 – 06/2026
Machine Learning Engineer Zaragoza, Spain

- Contributing to the development of CompactifAI, focused on large-scale model compression and efficiency optimization
- Implementing advanced compression techniques inspired by tensor networks and quantum-inspired methods to reduce model size while preserving performance
- Developing production-ready implementations to improve deployment feasibility and cost-efficiency of large AI models
- Collaborating with research and engineering teams to translate theoretical approaches into scalable ML solutions

Telespazio 02/2025 – 08/2025
Software Analyst Intern Barcelona, Spain

- Implemented Python-based data processing pipelines to analyze satellite imagery, focusing on robustness and data integrity
- Designed REST APIs, database schema, authentication and data-validation logic
- Managed a small backend tearn of two interns: task assignment, code reviews and delivery planning
- Improved backend reliability and maintainability through refactoring, testing, and debugging of production systems
- Designed backend systems with emphasis on data integrity, scalability, and long-term maintainability
- Contributed to scalable backend services handling large data volumes

Air-Fi 07/2024 – 12/2024
Machine Learning & Data Analyst Intern Barcelona, Spain

- Implemented fall and position detection models using time-series sensor data, focusing on robustness and false-positive reduction
- Worked on a healthcare project using wearable wristbands with accelerometers and gyroscopes
- Processed and cleaned large volumes of high-frequency time-series data using Python, focusing on data quality and consistency
- Built scalable Python workflows to aggregate, filter, and synchronize high-frequency sensor data from multiple sources
- Developed internal tools to automate data analysis, visualization, and diagnostic feature extraction for operational ML workflows

PROJECT

Real-Time Market Data Collection & Analysis System 11/2024 – Present
November 2024 - Present
- Built data pipelines to collect and process real-time data from 10,000+ assets across multiple external APIs
- Processed large, noisy datasets under real-time constraints with emphasis on robustness and reliability
- Built an automated, agent-like system combining real-time data ingestion, signal analysis, and alert-driven decision workflows, with a conversational Telegram interface.
- Designed quantitative metrics and alert logic to support real-time decision-making under uncertainty

Percolation Analysis Engine - Graph Theory & Visualization 09/2024 – 12/2024
September 2024 - December 2024
- Simulated percolation processes on random graphs using NetworkX
- Analyzed cluster growth, connectivity loss, and phase transitions as nodes and edges failed
- Generated visualizations to track how graph structure evolved across iterations
- Studied critical thresholds and network robustness under node and edge failures

Heuristic Search Solver - Hill Climbing & State-Space Optimization 02/2025 – 05/2025
February 2025 - May 2025
- Built a Java solver using heuristic search and hill climbing
- Designed heuristics to reduce search cost and avoid local maxima
- Evaluated performance across different strategies and initial states

EDUCATION

Technical University of Denmark (DTU) 09/2025 – Present
Exchange - Master-level Computer Science Courses Copenhagen, Denmark
- Advanced coursework in Machine Learning, Deep Learning, Graph Neural Networks, and data-driven modeling
- Hands-on projects including Graph Neural Networks for molecular dynamics simulations

Universitat Politècnica de Catalunya (UPC BarcelonaTech) 09/2022 – Present
Bachelor's Degree in Computer Engineering Barcelona, Spain
- Strong foundation in algorithms, data structures, complexity analysis, and optimization
- Experience designing efficient data structures, reducing computational cost and optimizing code performance.

SKILLS

Tools
- Git, Linux, Web Scraping, Telegram Bots

Data/ML
- PyTorch, Scikit-learn, time-series, anomaly detection

Programming
- C++, Python, Java
- Algorithms, Data Structures, Graph Theory, Optimization

Systems
- REST APIs, FastAPI, Docker, PostgreSQL

LANGUAGES

English — Fluent

Spanish — Native/Bilingual

Catalan — Native/Bilingual