

# Jesús C. Blázquez Martínez

Computer Science & Mathematics Student

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## EDUCATION

### Double Major in Computer Science & Mathematics

Expected 2028

Universidad Autónoma de Madrid (UAM)

- Cumulative GPA: 9.14/10. Academic Honors: Distinction in Data Structures (2024) and Computer Architecture (2026).
- Relevant Coursework: Algorithm Design, Numerical Analysis, Operating Systems, Computer Networks, Linear Algebra.

### Professional Degree in Music (Oboe)

2013 – 2023

Conservatorio Tomás de Torrejón y Velasco

## TECHNICAL SKILLS

**Languages:** C++, C, Python, Bash, Lua, Java, LaTeX  
**Systems & Tools:** Linux/Unix Administration, Docker, Git, Vim/Vi  
**Development Tools:** GDB, Valgrind, Make/Cmake  
**Math:** Numerical Calculus, Linear Algebra, Vector Analysis  
**Spoken Languages:** Spanish (Native), English (Professional Working Proficiency)

## ENGINEERING & SIMULATION PROJECTS

### Custom C++ HTTP API | C++17 | Network Programming | epoll

[github.com/jesuscbm/posthaste](#)

- Developed a high-performance HTTP/1.1 server from scratch using C++17 and the Reactor pattern.
- Implemented a non-blocking I/O event loop with Linux epoll (Edge-Triggered) and a custom ThreadPool.

### Multi-threaded Sorting Visualizer | C | SDL3 | Concurrency

[github.com/jesuscbm/sorting\\_visualizer](#)

- Developed a real-time rendering engine using C/SDL3 to visualize complex algorithms like QuickSort.
- Implemented safe POSIX multi-threading to prevent UI blocking during intensive sorting operations.

### Network Defense Workshop (L7 DoS) | Python | Docker | Networking

[github.com/jesuscbm/dos-workshop](#)

- Designed a containerized laboratory to simulate Layer 7 DoS attacks and analyze HTTP flooding patterns.
- Organized and conducted a technical workshop for 20+ students on mitigation techniques.

## HONORS & AWARDS

### Academic Excellence Scholarship

2024

Community of Madrid / UAM

- Awarded for maintaining a GPA within the top percentile of the cohort.

### Mathematical Olympiads

2018

Regional Competitions

- Silver Medal in Albacete & Bronze Medal in Castilla-La Mancha Mathematical Olympiads.

## EXTRACURRICULARS & INTERESTS

### HomeLab & Systems Administration

Ongoing

Personal Infrastructure

- Maintains a self-hosted Linux homelab (Docker, VPN, Reverse Proxy) to practice systems administration and networking.

### Independent Study in Economics & Accounting

2024

Self-taught

- Completed a comprehensive study of Blanchard's Macroeconomics and a specialized course by the CEF in Financial Accounting.