

Oscar David Hernández Rodríguez

COMPUTER SCIENCE STUDENT · SOFTWARE DEVELOPMENT ENGINEER INTERN

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”like making sense of complexity—through code, data, and the systems that connect them.”

Education

National Autonomous University of Mexico (UNAM)

Mexico City, Mexico

B.S. IN COMPUTER SCIENCE

Aug. 2020 – Expected Jun. 2026

- Focused on software engineering, data analysis, and system design.
- Special interest in distributed systems, probability, concurrent programming, and backend development.
- **Featured Course: Statistical Inference (2025-2)** – Applied data-driven decision making using hypothesis testing, error analysis, and real-world data modeling.

Experience

UNAM

Mexico City, Mexico

TEACHING ASSISTANT – CONCURRENT COMPUTING

Feb. 2024 – Present

- Supported students in multithreading, synchronization, and memory sharing using C, Java, and Swift.
- Designed explanatory materials and exercises to foster rigorous thinking and performance analysis.

UNAM

Mexico City, Mexico

IOT DEVELOPER – INTERNET OF THINGS COURSE

Feb. 2025 – Jun. 2025

- Built an autonomous sensor-based system using ESP32 with database and AWS integration.
- Logged and analyzed real-world signals to test system behavior and optimize reliability.

UNAM

Mexico City, Mexico

TEAM LEADER – ACADEMIC SOCIAL NETWORK PROJECT

Aug. 2023 – Nov. 2023

- Managed agile development of a web application using C# and .NET.
- Led sprint planning, code reviews, and integration, ensuring data integrity and usability.

Projects

2023	Python & YOLOv5 , Implemented a real-time object detection system optimized for low-resource environments. Extracted structured insights from visual data streams and evaluated system performance across scenarios.	AI Object Detection
2024	C# & .NET , Built a CRUD application as part of a systems development lab, using Git for version control and Agile methodology.	Systems Development Lab
2023	Java & Compiler Theory , Developed a full compiler for a custom object-oriented language defined by UNAM's CS faculty, applying lexical, syntactic, and semantic analysis.	Custom Language Compiler
2024	C, Java & Swift , Supported students as a teaching assistant in Concurrent Programming. Worked with multithreading, synchronization, and shared memory.	Concurrent Systems – TA

Skills

Programming Languages	C#, Python, Java, JavaScript, SQL, R
Frameworks & Technologies	.NET, Django, REST APIs, Git, GitHub, Jenkins, CI/CD pipelines
Cloud & DevOps	AWS (basic), Azure (familiar), cloud deployment, distributed services
Development Practices	Agile/Scrum, Unit Testing, Code Review, Clean Code, Technical Documentation
Tools	Visual Studio, Jupyter Notebooks, RStudio, Microsoft Excel (certified), Google Workspace, Linux
Databases	PostgreSQL, PL/SQL, MySQL, MongoDB, basic Oracle
Languages	Spanish (Native), English (TOEFL C1)