

Jaret Eduardo González Carrasco

Software Engineer | Torreón, Coahuila, Mexico

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Portfolio: <https://www.jareteduardo.dev>

PROFESSIONAL PROFILE

Software Engineering candidate with hands-on experience designing and building backend services, RESTful APIs, and cloud-native systems. Strong foundation in Computer Science fundamentals (Data Structures, Algorithms, OOP) with practical expertise in **C++**, **Python**, **.NET**, and **JavaScript**. Experienced in Linux environments, production debugging, and Agile collaboration. Passionate about scalable systems, performance optimization, and hardware-software integration.

TECHNICAL SKILLS

- **Programming Languages:** C++ (Advanced), C# (.NET), Python, JavaScript/TypeScript, PHP, Bash.
- **CS Fundamentals:** Data Structures, Algorithms, Object-Oriented Programming (OOP), Software Design, Systems Architecture.
- **Backend & Systems:** REST APIs, WebSockets, .NET Core, Node.js (Express), Laravel, Authentication (Sanctum), Real-time data processing.
- **Cloud & DevOps:** AWS (EC2, S3, Lambda, SES), Digital Ocean, Docker, CI/CD, GitHub Actions, Linux, Git.
- **Databases:** SQL Server, MySQL, PostgreSQL, MongoDB.

WORK EXPERIENCE

Backend .NET Developer | *API INMOBILIARIA* | Torreón, Mexico

December 2025 – Present

- Engineered and maintained core, scalable RESTful APIs using **.NET Core** and **C#**, establishing high-performance and robust security protocols for proprietary real estate data management.
- Led optimization efforts for complex database queries (SQL Server/MySQL), resulting in significant improvements in overall system response times and data throughput.

- Collaborated cross-functionally with frontend teams to define service contracts, integrate microservices, and ensure seamless delivery of new features.
- Drove the adoption of modern software architecture best practices (e.g., SOLID principles) and contributed to legacy code refactoring to enhance maintainability and lay the foundation for future CI/CD pipeline integration.

PROJECTS

KAIML | *High-Performance Computing Library Architect*

- Created a proprietary, high-performance Machine Learning (ML) library optimized for hardware-level execution.
- Implemented core linear algebra and algorithmic kernels utilizing C, C++, Rust, and Assembly for maximum computational efficiency.
- Leveraged **PTX** (Parallel Thread Execution) and **CUDA** to enable massive parallelization and exploit GPU acceleration for high-performance computing tasks.

KAI | *AutoML System Engineer*

- Engineered a full-stack, high-performance Automated Machine Learning (AutoML) platform.
- Developed a latency-critical C++ backend responsible for all complex numerical processing and machine learning operations.
- Designed the user-facing application using C# and WPF, focusing on robust cross-language interoperability and efficient memory management to maintain high data throughput.

IoT Smart Store System | *Backend & Cloud Developer* | **UTT 2025**

- Architected a real-time backend integrating ESP32 microcontrollers and IoT sensors via REST/WebSocket APIs.
- Managed concurrent hardware events with low latency to provide live inventory updates.
- Leveraged AWS (SES) to implement automated email notifications for low-stock alerts, effectively reducing manual checks by 70%.

AI-Powered Predictive Maintenance | *API Developer* | **HackMTY 2024**

- Developed robust backend APIs to ingest and analyze industrial sensor telemetry, applying integrated AI/ML models for proactive equipment failure prediction.

- Implemented an automated alert and risk scoring system, which successfully reduced operational downtime by 30%.
- Optimized service performance using Laravel, MySQL, and Python, adhering to clean architecture principles.

EDUCATION

Bachelor of Science in Software Engineering | Expected Graduation: December 2027

Associate Degree (TSU) in Software Development | Graduated: April 2026

ADDITIONAL INFORMATION

- **Languages:** English (Intermediate-Advanced, Technical Communication).
- **Hackathons:** Participant in HackMTY 2024 and HackMTY 2025.
- **Interests:** Distributed Systems, Cloud Platforms, AI/ML, High-Performance Computing.