Marcelo Hernandez

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Education

Florida International University, *BS in Computer Science* Expected May 2027

- **Relevant Coursework:** Programming I & II, Data Structures & Algorithms, Object-Oriented Programming
- **Activities:** Break Through Tech, INIT, Society of Hispanic Professional Engineers (SHPE)

Google Tech Exchange, *Technical Program* Jan 2025 - May 2025

- **Selected from 200+ candidates** to receive technical interviews and system architecture/software engineering coaching.
- **Courses:** Algorithm & System Design, Introduction to Software Engineering, and Careers in Tech

Skills

Languages: Java, JavaScript, TypeScript, Python, Golang, Rust, C/C++, Bash, SQL

Technologies: React, NextJS, Vercel, Git, GitHub Actions, Linux, Unix, Azure DevOps, Vim, Streamlit, BigQuery

Experience

KBR, Inc., *Software Engineering Intern* May 2025 – Present

- **Designed and implemented** a conversion mechanism for J1708 vehicle diagnostic messages to the ASAM MDF 4 format.
- Developed using C++ to be run on a **large-scale embedded device**, along with a team of five software engineers.
- **Established a CI/CD pipeline** on the Azure DevOps cloud platform for automated testing and enforcing formatting.
- Worked swiftly and effectively in a few week long sprint internship hosted in collaboration with **Break Through Tech**

Miami Dade College, *Computer Science Tutor* Feb 2023 – Present

- Coached **over 100 students** on implementing data structures and creating projects using Java, C/C++, SQL, and Python.
- Collaborated with a team of **10+ tutors** to deliver comprehensive support across multiple programming languages.
- **Increased students' GPA by 20%** and significantly increased classroom participation rates across multpile subjects.

Competitions and Challenges

NASA Lunabotics Challenge 2025, *FIU Panther Robotics* github.com/FIU-Lunabotics/FIU-Luna0

- Developed a client-server architecture in Python to control a lunar rover. Optimized the connection by using Unix sockets to communicate, and the client preserves low latency through direct reading of Linux's evdev interface. C++ was used for an Arduino on the rover to read input from the rover's Raspberry Pi server and manage motors.

ICPC 2022 USA Southeast Regional, *MDC CyberSharks*

- Won silver medal in Division 2 with my group of 3 teammates, solving the proposed challenges using Java and Python.

Projects

atmpt | *Rust, Github CI, Command-Line* github.com/marcelohdez/atmpt

- Developed a Rust command-line tool that creates temporary coding projects from saved templates, and opens them in your editor, leading to a **decrease in time-to-code by 40%** for programming tutors demonstrating concepts.
- Implemented CI/CD pipeline with GitHub Actions for **automated testing** on Linux, macOS and Windows.

Define4Me | *Java, MVC, JSON, REST API* github.com/marcelohdez/Define4Me

- Built a dictionary application using Java and **MVC architecture** that leverages the **Free Dictionary API** to define words.
- Implemented **JSON parsing** to process API responses and present definitions in a user-friendly format.

Bedroom | *Java, Swing API, Data Visualization* github.com/marcelohdez/bedroom

- Developed a **zero-dependency Java application** for call center agents to track their orders and breaksth the ability for **interactive data visualization** to view performance trends over time.
- Implemented customizable UI and shortcuts, **improving productivity and reducing manual calculations.**

dim | *Rust, Github CI, Command-Line, TOML Parsing* github.com/marcelohdez/dim

- Created a Wayland (Linux display protocol) screen dimmer in Rust with a **command-line interface** and configurable using a TOML file, tested continuously with **GitHub Actions**.