

MATEO ORTEGA

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TECHNICAL SKILLS

Back End | C, C++, Python3, C++ Cuda, Rust, Go, Node JS / Bun JS

Front End | ReactJS, HTML, CSS, Svelte, QT (Gui Development)

Developer Tools | Docker, Git, npm, Visual Studio, Linux, AIX, OpenGL, PyTorch, RHEL

Hardware/Firmware development | System Verilog, Assembly (RISC-V & ARM), MULTISIM, Xilinx, Virtuos Cadence, Creo Schematics

DISTRIBUTED SYSTEMS SOFTWARE ENGINEERING APPLICATIONS

RTX - Software Engineer | HWIL Test Engineer

January 2023 - Present

Software Test Developer

C++, Cuda, QT, Google Tests

- Created specialized Google Test suites designed for the testing of FPGAs and emulators on our HWIL stations.
- Introduced real-time monitoring, parameterization, and advanced logging in GUI for insightful test result analysis.
- Implemented multithreading capabilities, utilizing CUDA, to enhance the efficiency of test execution for time-critical applications.
- Incorporated hardware, including FPGAs, seamlessly into our testing stations.
- Established modular hardware integration for scalability and easy upgrades in testing infrastructure.
- Integrated version control for Google Test suites, ensuring collaboration and version consistency.

IBM - Product Engineer Intern | Power Systems Product Engineer

May 2022 - Aug 2022

Web Creation for Internal Tools

Python3, Salesforce, W3 web creator

- Facilitated discussions with front-end team to assess client expectations and constructed Figma wireframe
- Web development to design and implement user-friendly interfaces for these tools, making them more accessible and efficient for internal teams to use
- Worked closely with cross-functional teams to gather requirements and ensure that the tools met the needs of the users

IBM - Product Engineer Co-Op | Analyzing on Arrival Internal Tool

Aug 2022 - Dec 2022

Development of Internal tool for analyzing errors logs from customer

Python, Pandas, PostgreSQL, Java

- Developed a tool for decoding and pre-analyzing logs sent by customers at IBM
- Utilized programming languages such as Python and Java to create the tool
- Implemented machine learning algorithms to assist in the log analysis and providing possible solutions
- Worked closely with a team of engineers to ensure the tool met the specific needs of the company and its customers
- Contributed to the overall improvement of the backend by streamlining the log analysis process and increasing customer satisfaction.

PROJECTS

Firmware for Electric Car to Grid Technology

JavaScript, C, Assembly(RISC-V), C++, HTML

- Developed firmware for a system that controls relays using an ESP32 microcontroller.
- Implemented an internal router to allow for wireless control of the entire system.
- Utilized C to write the firmware & HTTP Server.
- Worked on integrating the different components of the system, such as the relay control and wireless communication.
- Front end done with JavaScript along with Server Side Rendering.

EDUCATION

Arizona State University - Masters of Science, Computer Science

January 2024 - Present

The University of Texas at El Paso - Bachelors of Science, Electrical & Computer Engineering, GPA (3.13) December 2022