Ramon Saturnino

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Education

University of North Carolina at Greensboro Greensboro, NC

*Bachelor of Science in **Computer Science**, Minor in **Mathematics*** *Expected Grad. Dec 2026*

Relevant Coursework: Data Structures, Algorithms, Operating Systems, Linear Algebra, Discrete Math, Software Engineering, System Programming, Natural Language Processing, Network

Technical Skills

Languages & Frameworks: Java, Python, C/C++, Go, MSSQL, MySQL, JavaScript, HTML/CSS, Flask, React, FastAPI, R

Tools & Technologies: Git, GitLab, PyTorch, TensorFlow, REST APIs, NumPy, AutoGen, WebSockets, MCP, Cohere, PineCone, Docker, Rancher, Streamlit

Experience

Software Engineer Intern May 2025 – Present

Oracle *Redwood City, CA*

- Built an internal automation tool using **Python** to reduce the operations team's workload by automating repetitive requests from external teams using **AI Agents**. As part of it, implemented a chat-based interface using **React** allowing users to interact with agents to execute their tasks.
- Developed an **MCP server** to host and manage modular tools responsible for handling various automated tasks, and available for agent function calling, reducing handling and manual time by **78%**
- Utilized the **Autogen** library and **FastAPI** to create backend REST API endpoints, enabling smooth communication between the frontend and AI-driven backend logic.

Automation/Controls Engineer Oct. 2022 – Jan. 2024

Aisin North Carolina *Durham, NC*

- Implemented **Python** scripts to automate **40%** of tasks in a new **Manufacturing Execution System (MES)**, significantly enhancing operational efficiency. This included developing scripts for task scheduling, data processing, and system monitoring, resulting in streamlined workflows and improved productivity within the organization.

Projects

DocuChisme (Hackathon 1st Place) | *Python, Gradio, PyMuPDF, Gemini API* April 2025

- Developed a **Python**-based document translation system that parses uploaded PDFs, detects fillable fields using **PyMuPDF**, enables real-time multilingual form editing, and re-encodes modified documents for export.
- Engineered a **context-aware chatbot** interface that leverages embedded document context to provide field-specific assistance in the user's language, enhancing usability for non-English speakers.
- Implemented low-level PDF parsing and reconstruction logic to support both AcroForm and flat PDF formats decreasing by **50%** recompiling time, and handling **encoding/decoding** inconsistencies across diverse document structures.

DataBridge | *Python, Multi-Threads, pymelsec, SQL, mariaDB, flask, Linux* May 2024 – Aug 2024

- Developed a **Python** application, deployed on a **Raspberry Pi**, to pull data from Mitsubishi PLCs (located in manufacturing lines) and store it in an **SQL** database, ensuring data integrity and availability for other projects.
- Optimized processing time by implementing **multithreading**, resulting in a **6-second reduction** compared to the previous multiprocessing implementation. Also built **failover servers** to ensure reliabilty of data.
- Managed database connections and implemented error handling to generate alerts in case of internet connectivity issues, **reducing downtime by 60%** and ensuring continuous data flow.

Professional Development

Accepted into the following highly-selective programs:

- **Bloomberg** Engineering Tech Insights, **Google** Latinx Student Leadership Summit, **Capital One** First Gen Focus Fellow, **IBM** Accelerate Engineering Program, **Qualcomm** Student Accelerator.

Affiliations:

- **ColorStack**, **SHPE**.