Melvin Orichi Socana

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EDUCATION

Stanford University, Stanford, CA, GPA 3.55 September 2022 – May 2024
Master of Science (MS): Electrical Engineering (Software & Hardware)

North Carolina State University, Raleigh, NC, GPA 3.43 August 2018 – May 2022
Bachelor of Science (BS): Electrical & Computer Engineering

EXPERIENCE

Amazon, Seattle, WA May 2023 – August 2023
Software Development Engineer Intern

- Spearheaded the development of 'Albums' API feature for Amazon Photos software in C# and .NET framework.
- Authored a design document under ambiguous requirements, aligning cross-functional teams on architecture.
- Communicated effectively with cross-functional teams and non-technical stakeholders.
- Engineered SQL database queries and schemas to efficiently store/retrieve metadata via pagination.
- Collaborated with senior engineers to integrate backend logic with existing RESTful API endpoints**.**

Intelligent Wireless Networking Laboratory, Raleigh, NC February 2022 – May 2022
Software/Machine Learning Research Assistant

- Collaborated with **Cisco** & PhD candidate to troubleshoot and optimize network performance and throughput.
- Deployed lightweight machine learning models on resource-constrained nodes, demonstrating the practicality of AI-driven solutions in low-power and limited-hardware environments.

Active Robotic Sensing Laboratory, Raleigh, NC August 2021 – May 2022
Software, Robotics, & Machine Learning Research Assistant

- Led development on the hardware and software imaging system for the BenchBot, a robotics device designed to identify species and estimate biomass.
- Designed and implemented robust software to interface with DepthAI cameras and servos, capturing high-quality plant images to train machine learning models.

Johnson & Johnson, Santa Clara, CA May 2021 – August 2021
Software/Hardware Engineer Intern

- Engineered a diagnostic board for rapid verification of communication protocols (I2C, SPI, CAN, UART), yielding 20-30% cost and time savings in test and verification procedures.
- Authored comprehensive testing protocols and technical reports for hardware-software integration.

Laser Product Safety LLC, Raleigh, NC September 2020 – March 2021
Junior Software/Hardware Laser Engineer

- Provided software and hardware guidance for laser safety classifications and compliance improvements.
- Conducted hardware-software interfacing tasks to verify compliance and ensure safety standards were met.

SKILLS

Programming Languages	Python, C/C++, C#, Go, JavaScript/TypeScript, MATLAB, HTML/CSS
Software & Tools	Linux, SQLite, NoSQL, Docker, KiCad, Git, Bash, UNIX, AWS, GCP, Kubernetes
Frameworks & Libraries	.NET Core, PyTorch, NodeJS, React, Selenium, NumPy, TensorFlow, REST