Christina Marangopoulos

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Computer Science undergraduate focused on software engineering, C/C++, Python, and embedded hardware integration. Experience building sensor acquisition software, debugging hardware/software issues, and implementing concurrent sorting in C++. U.S. citizen; eligible for security clearance.

EDUCATION

California State University, Long Beach | B.S. Computer Science | Expected May 2028

Coursework: Data Structures & Algorithms, Computer Systems & Assembly, Discrete Mathematics, Digital Logic Design

TECHNICAL SKILLS

Languages: Python, C, C++ | Software: Object-Oriented Programming, Algorithms, Debugging, Multithreading, Synchronization

Tools & Platforms: Git, Linux Command Line, MATLAB, Raspberry Pi | Engineering: Sensor Integration, Data Logging, Digital Logic, Circuit Fundamentals, Oscilloscopes, Multimeters

Development Practices: Testing & Validation, Technical Documentation, Agile/Scrum

ENGINEERING PROJECTS

Multithreaded Bubble Sort | C++ Coursework Project | 2026

- Implemented a C++ sorting program using 16 worker threads to process designated segments of integer arrays; compared the threaded workflow with sorting logic on test inputs.
- Used std::thread, std::mutex, and a shared swap counter to coordinate execution and protect updates to shared state; investigated compilation and runtime behavior.

Automated Environmental Sensor System | Raspberry Pi, Python, MATLAB | Team Project, 2024

- Built a Raspberry Pi-based data acquisition prototype integrating temperature, humidity, and light sensors; wrote Python polling and timestamped logging routines.
- Analyzed sensor readings in MATLAB and troubleshot calibration drift to improve data accuracy; coordinated hardware/software integration in a four-person team.
- Documented the system architecture, setup, and results and presented the prototype to faculty reviewers.

EXPERIENCE

Computer Science Tutor | Cypress College, Cypress, CA | Aug 2022 - Jan 2025

- Taught Python fundamentals, debugging strategies, and algorithmic problem-solving through individualized support and hands-on programming exercises.
- Created coding labs and troubleshooting activities; reported a 30% increase in student assignment completion rates.

Server | Ouzo & Feta, Huntington Beach, CA | Aug 2023 - May 2024

- Managed service across up to 10 tables per shift and trained new staff on point-of-sale workflows and team coordination.

CERTIFICATIONS & INVOLVEMENT

Google: IT Support Professional Certificate; Project Management Professional Certificate

Women in Engineering Club: Member, 2024 - Present