

Natalene Gunawan

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Education

University of California, Irvine

B.S Computer Engineering | GPA: 3.6

September 2024 - March 2027

Irvine, CA

Mt. San Antonio College

A.A Mathematics (Transfer, Presidential Dean's List) | GPA: 3.53

August 2022 - June 2024

Walnut, CA

Associations: Society of Women Engineers, First Robotics Competition, WICS, Gaming Animation Industry Network (GAIN)

Experience

Systems Software Engineering Intern

June 2025 - Sept 2025

ASML

San Jose, CA

- Built a **web-based compliance dashboard** and automated diagnostics pipelines for multi-beam inspection systems, reducing manual status checks by 10+ hours/week. (**Python/Flask, HTML/CSS, JS, Git**)
- Developed **Python data-ingestion tools** to parse firmware release notes (**Pandas, Numpy, Requests**)
- Analyzed **system-level data** (firmware, hardware, software configurations) to identify performance risks and improve release readiness.

Software Engineering Intern

May 2024 - September 2024

Oshkosh Corporation

Oshkosh, WI

- Developed an **in-vehicle dashboard** integrating **multi-camera vision feeds** within electric tow trucks and providing control system feedback in real time. (**Python - OpenCV/Tensorflow/Keras, Altia Design**).
- Supported vehicle systems engineers in testing **embedded control units**, documenting data flow between perception and control modules with **AI/ML**.

Product Management Intern

January 2025 - May 2025

ITT Inc.

Placentia, CA

- Created interactive **Excel** and web-based tools with **VBA** and lightweight **JavaScript automation** to forecast mechanical performance and bid scenarios for \$20M+ projects and 800+ pump components.
- Created **Creo CAD** models and documentation to ensure compliance with mechanical/system specifications.

Mechanical Systems Advisor

October 2022 - Present

FIRST Robotics Competition Volunteer

Los Angeles, CA

- Mentored students on diagnosing/repairing robotic systems with **control integration + real-time troubleshooting**.
- Managed field setup/teardown operations for events, ensuring consistent match flow and system reliability.

President

July 2023 - June 2024

Mt. Sac Computer Science Club

Walnut, CA

- Revived and scaled club post-pandemic, increasing membership up to **800+ students in one year**.
- Launched tutoring, professor-led workshops, and inter-club projects, building campus-wide technical engagement.

Projects

MIPS Pipelined Processor

October 2025- November 2025

- Implemented a fully pipelined **MIPS** processor using **Verilog** with complete **hazard-handling** support.
- Developed verification testbenches and optimized timing for **Basys3 FPGA** deployment.

Arduino Sensor Testing

May 2023- June 2023

- Programmed and tested multiple **sensors** (potentiometer, light sensor, thumbstick, and button modules) on a **SainSmart Arduino UNO R3** microcontroller.
- Implemented **C++** control logic to trigger actions based on sensor thresholds.

Skills and Relevant Coursework

Systems & Tools: Linux/UNIX, Windows, Shell, Git, Docker, CI/CD, REST APIs, Performance Analysis

Languages & Frameworks: Python, C/C++, Java, JavaScript, SQL, HTML/CSS, Flask, React

AI/ML: OpenCV, TensorFlow, PyTorch, Pandas, NumPy, Matplotlib, Keras

Relevant Coursework: Computer Architecture, Operating Systems, AI/ML, Data Structures, Computer Networks