

# Son Huynh

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## EDUCATION

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**San Diego State University** – Computer Engineering B.S.

August 2024 - May 2026

**San Diego Miramar College** - Computer Science A.S.

August 2021 - May 2024

Cumulative GPA: 3.56

Future Coursework: VLSI Circuit Design, Database and Web Programming, Microprocessors

Relevant Coursework: Circuit Analysis I/II, Wireless Network, Digital Circuits, Computer Architecture, Advanced Programming, Engineering Electronics

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## PROJECT

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### Smart Home Automation and Energy Monitor

January 2025

- Developed a Raspberry Pi-based unit to remotely control home lighting using a **Flask API and URL activation**.
- Designed an **energy monitoring API** to track power consumption and current draw of the lighting system.
- Implemented secure remote access using **Ngrok** to mitigate security risks.
- Optimized network communication by **reducing API latency, utilizing Flask's threaded mode** to handle multiple requests and minimizing I/O operations for optimal response time.

### Arduino Wireless Weather Station

November 2024

- Collected weather data to provide a comprehensive view of weather conditions, using the **BME680** sensor to measure temperature ( $\pm 1^{\circ}\text{C}$  accuracy) and humidity ( $\pm 3\%$  RH accuracy) for data collection.
- Developed Python scripts for real-time data collection and processing.
- Integrated Amazon Alexa with the **Arduino R4 WIFI** to expand the weather report functionality via voice commands, offering a responsive and customized user experience.
- Built a web dashboard for visualizing weather trends over time to support analysis and informed decision-making.

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## EXPERIENCE

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### Engineer Intern, Naval Information Warfare Center – Point Loma, CA

January 2025 – Present

- Developed and deployed system automation using **UI Path**, optimizing logistics management workflows and reducing manual processing time.
- Designed and implemented embedded software for real-time tracking and inventory control, reducing inventory errors.
- Integrated hardware and software solutions to ensure a seamless transition between manual and automated operations, improving system efficiency.

### IT Help Desk Assistant, SDSU College of Engineering – San Diego, CA

August 2024- Present

- Installed and configured educational software for 200+ faculty and students, ensuring compliance with university standards.
- Troubleshoot and resolved software issues for over 200 College of Engineering faculty members, enhancing operational efficiency through technical support.
- Updated and maintained the school's IT supply, ensuring high-quality devices are available for staff and students.

### IT Consultant Intern – M&E Computers – Point Loma, CA

March 2024 – September 2024

- Performed hardware upgrades and replacements, software deployments, and computer installations for clients.
- Diagnosed and resolved **computer hardware and software issues** across computers and mobile phones.
- Provided on-site and remote technical support for clients and companies, resolving request tickets and technical issues.

### Research Intern, Scripps Institution of Oceanography - La Jolla, CA

January 2024 – May 2024

- Utilized QGIS to design detailed geological maps, enhancing landslide analysis.
- Analyzed 150+ geological data points using Python (NumPy, Pandas), generating visualizations that identified key landslide risk factors.
- Coordinated weekly field activities, collecting geological samples to validate predictive models with high accuracy.

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## SKILLS

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- Programming Languages:** Python, C++, C, Verilog
- Development Tools & Software:** Visual Studio Code, Vivado Design Suite, LTSpice, Git, JetBrains