

Education

San Diego State University

San Diego, California

Bachelor of Science in Computer Science, Major GPA: 3.75

August 2022 - May 2025

Work Experience

Software Engineer Intern

February 2025 - May 2025

Redtry.AI (<https://redtry.xyz>)

San Diego, California

- Scraped 15,089 products using 5 scrapers coordinated via SQS and an AWS Lambda Function that distributed **S3** presigned urls.
- Streamlined product filtering across 23 **PostgreSQL** tables by merging similar columns using LLM-generated keywords.
- Enabled LLM product search by publishing a **TypeScript MCP** script to **npm** for instant use.
- Vectorized Meta **LLaMA-8B** link classification using **NumPy**, cutting runtime by 38× (225.1s → 5.9s for 5,000 links).
- Powered hundreds of product searches via a **Flask API** on **EC2**, supporting persistent multi-session memory with **MongoDB**.

Research Assistant | Autonomous Racing

September 2024 - May 2025

SDSU Real-Time Embedded Control Systems Lab

San Diego, California

- Improved real-time obstacle detection throughput from 4.6 Hz to 11.5 Hz by developing a **YOLO**-based overtaking system.
- Enabled localization by building a **ROS 2** wrapper for ORB SLAM 3 and integrating it into vehicle.

Skills Summary

- **Languages:** TypeScript, JavaScript, Python, C, C++, Go, Java, SQL, Bash
- **Frontend:** React, HTML, CSS, Tailwind, Vite, Flutter
- **Backend:** REST API, SQL, Async, OOP, Flask, JUnit
- **Dev Tools:** Git, Docker, Gitlab, VMWare, Hypervisor, Bash and Python Automation, Cursor
- **Data Science & AI:** Pandas, NumPy, Matplotlib, YOLO, TensorFlow
- **Cybersecurity** Active Directory, NIDS/NIPS (Suricata), XDR (Wazuh), Greenbone Vulnerability Manager, Kali
- **Applied courses:** Applied Security Management, Database Theory and Management, Machine Learning
Real Time Operating Systems, Unix System Administration, Data Science
- **Soft Skills:** Eagle Scout, Strong Stakeholder Management, Excellent Communication

Projects

DAWZY (<https://devpost.com/software/dawzy>)

June 2025

- Developed an AI music assistant selected as a top 3% finalist (9/331 teams) at UC Berkeley's AI hackathon in under 24 hours.
- Delivered 100% hands-free DAW control—track creation, FX, and navigation—via **Claude Tools** and **Python ReaScripts**.
- Translated raw humming into accurate digital music (96% F1 on MAESTRO) using Google's MT3 transformer.

Secure Cloud Architecture

January 2025 - February 2025

- Hardened virtual network by isolating systems from a public-facing **DMZ** using an **OPNSense** firewall VM with **Suricata NIDS**.
- Centralized authentication and **DNS** for 6 Windows VMs with **Active Directory**.
- Automated endpoint threat detection and incident response for 7 VMs, implementing a centralized **SIEM** by deploying **Wazuh XDR** in an **LXC** container and configuring agents across all VMs.
- Conducted penetration tests on 6 Unix VMs using **Metasploit** and **Greenbone** with **Kali Linux**.

Certifications

CompTIA Security+

June 2024 - June 2027

- Acquired knowledge in risk management, cryptography, and threat management.
- Learned to implement incident response strategies and develop disaster recovery plans.