

Education

University of California, Davis	Davis, California
Master of Science in Computer Science	September 2025 - January 2027
San Diego State University	San Diego, California
Bachelor of Science in Computer Science	August 2022 - May 2025
Courses: Applied Security Management, Database Management, Data Structures and Algorithms, Real-Time Operating Systems, Software Systems, Unix System Administration, Machine Learning, Programming Languages, Computer Architecture	
GPA: 3.65	

Work Experience

Software Engineer Intern	February 2025 - May 2025
Redtry.AI (redtry.xyz)	San Diego, California
<ul style="list-style-type: none">Powered 200+ product searches by building an agentic AI chat website using React.js and a Flask API deployed on AWS EC2.Developed a distributed web crawling system using AWS Lambda, S3, and SQS, inserting 15,000+ product JSONs into PostgreSQL.Reduced TensorFlow classification time for 5,000 URLs from 225.1s to 5.9s by batching inputs with NumPy.	
Research Assistant Autonomous Racing	September 2024 - May 2025
SDSU Real-Time Embedded Control Systems Lab	San Diego, California
<ul style="list-style-type: none">Programmed an embedded Ubuntu computer to autonomously race 1/10th-scale cars using ROS 2 for IPC.Engineered a YOLO computer vision pipeline for autonomous overtaking, increasing obstacle detection throughput from 4.6 Hz to 11.5 Hz.Integrated ORB-SLAM3 into vehicle by building a ROS 2 wrapper, enabling real-time environment mapping.	

Projects

DAWZY (devpost.com/software/dawzy)	June 2025
<ul style="list-style-type: none">Developed an agentic AI music production assistant selected as a top 3% finalist among 331 teams at UC Berkeley's AI hackathon in 24 hours.Delivered natural language voice control over DAW including track creation, effects, and navigation via Claude Tools and Python ReaScripts.Transformed user humming into accurate digital music using Google's MT3 transformer, achieving 96% note start time accuracy.	
Applied Security Management Lab	January 2025 - March 2025
<ul style="list-style-type: none">Hardened a virtual network by isolating internal systems from a public-facing DMZ using an OPNSense firewall VM with Suricata NIDS.Centralized authentication and enabled DNS for 6 Windows VMs using Active Directory.Automated endpoint threat detection and incident response against 300,000+ CVEs for 7 VMs by deploying Wazuh XDR on an LXC container.Conducted penetration tests on 6 Unix VMs using Metasploit and Greenbone on Kali Linux.	
Kernel Process Scheduler (github.com/andb00/CS596-RT-2024Fall-Group05/tree/project3/proj3)	September 2024 - October 2024
<ul style="list-style-type: none">Reengineered the Linux kernel's process scheduler, adding 500+ lines of kernel C and 3 new system calls.Implemented a rate-monotonic scheduler, efficiently managing up to 50 concurrent processes using a red-black tree.Prevented process starvation by enforcing CPU utilization limits using hrtimers, SIGINT, and SIGKILL.Tested the modified kernel on a Raspberry Pi, reducing kernel compile and deploy time to 2 minutes via a Bash script.	

Skills Summary

• Languages:	TypeScript, JavaScript, Python, C, C++, Go, Java, SQL, Bash, HTML, CSS
• Full Stack:	React.js, Flutter, Node.js, Flask, Junit, Jest
• AWS:	CloudFormation, Lambda, S3, EC2, VPC, ECS, Route 53
• Dev Tools:	Git, Docker, Gitlab, VMWare, CMake, Maven, Cursor
• Data Science & AI:	Pandas, NumPy, Matplotlib, YOLO, TensorFlow
• Soft Skills:	Strong Stakeholder Management, Excellent Communication