David Corvaglia

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Education

Texas A&M University College Station, TX

Bachelor of Science in Computer Science *Aug. 2024 – May 2028*

- Engineering Honors
- **Relevant Coursework:** Engineering Computation, Program Design and Concepts, Data Structures & Algorithms, Computer Organization/Architecture
- **Extracurricular Involvement:** Hardware Hacking Activity Leader in Training - Cybersecurity Club

Experience

Google May 2025 – Aug. 2025

Associate Software Developer Intern *Atlanta, GA*

- Interned on the Fuchsia Engineering Productivity Infrastructure team, i.e. Infrastructure DevOps
- Created novel modular functionality to maintain the health of a fleet of devices used by hundreds of engineers
- Implemented various programs using Go, Python, Starlark, Salt Stack, and related knowledge of Linux and distributed systems
- Contributed to Memtest86+ and Fuchsia's open source code base

NASA Jun. 2024 – Aug. 2024

Experimental Robotics Division Intern - ER4 *Houston, TX*

- Worked on MicroChariot, an experimental rover with a distributed controller topology made using two different computing platforms, four motor controllers, and a CAN bus network
- Developed robotics control software in C/C++, TensorFlow, Python, CUDA, and on embedded Linux
- Spearheaded the development of autonomous path planning, specifically with obstacle detection to successfully have 100% uptime on the rock yard
- Investigated and implemented a custom machine learning model with a novel dataset to identify obstacles in challenging environments with a low rate of false positives

FIRST Robotics Competition Team 118 Oct. 2023 – May 2024

Software Student *Houston, TX*

- Programmed software in C/C++, Lua, and embedded Linux for two robots to assist the team to win eight banners in one season (a record in FRC)
- Trained a custom machine learning model deployed on four vision accelerators on the edge
- Enabled the use of TensorFlow and Python to identify objects on the field, making autonomous movement less prone to error and variations
- Maintained eight concurrent vision systems on two 125lb. robots

Skills

Languages: C/C++, Java, Go, Python, JavaScript, HTML/CSS, Bash, Starlark, Lua
Frameworks: React, Node.js, Tauri, Tailwind CSS, Astro, Svelte, TensorFlow, Django, gRPC
Tools: Git, Docker, Bazel, Github, Gitlab, VS Code, GCP, AWS, Azure, Vim, Linux/Unix & Windows, VMware, WSL, Proxmox, CoralEdge-TPU, Gradle, Salt Stack, Ansible, Terraform, UniFi, OPNSense, Networking, Postgresql, Ceph
Spoken & Written Languages: English, Spanish
Areas of Interest: Backend Development, Embedded Systems, Distributed Systems, High Availability, Networking, Cybersecurity, Robotics, Computer Architecture, Data Storage, Cloud Computing, Computer Vision

Certifications

Advisory Board Member Jun. 2024 – Present

Global Information Assurance Certification

Security Essentials (GIAC GSEC) Aug. 2023

Global Information Assurance Certification

- Attended SANS Institute course SEC401: Security Essentials - Network, Endpoint, & Cloud

Foundational Cybersecurity Technologies (GIAC GFACT) Jan. 2022

Global Information Assurance Certification

- Attended SANS Institute course SEC275: Foundations - Computers, Technology, & Security