Daniel Vayman

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EDUCATION

The University of Texas at Dallas Expected Graduation Date: Fall 2024
B.S., *Computer Science*, Minor: *Cognitive Science* GPA: 3.6

- Notable Coursework: Software Engineering, Data Structures and Algorithms, Systems Programming (UNIX), Computer Architecture, Discrete Math for Computing II, Probability & Stats in CS, Computer Science II

Stanford **June 2020 - Aug. 2020**
Non-Degree Seeking

- Notable Coursework: CS106b (Programming Abstractions)

SKILLS

- **Programming:** C, C++, C#, Java, Python, HTML, CSS, JS, Bash/Shell, XML, MIPS
- **Frameworks:** ROS, TensorFlow, PyTorch, Docker, CMake
- **Networking/Hardware:** CAN, Ethernet, TCP/IP, UDP, LACP, GPS, LiDAR, IMU, IoT
- **Software:** Linux, MacOS, Windows, Git, VSCode, Microsoft Applications, Atlassian, Arduino

PROFESSIONAL EXPERIENCE

Cisco Research Triangle Park, NC
Software Engineering Intern **May. 2023 - Aug. 2023**

- Resolved critical interface, SNMP, and infrastructure issues through comprehensive debugging across Cisco's Firepower (NGFW) platforms, **optimizing system performance, management, and accessibility**.
- Spearheaded the enhancement of Cisco ASA CLI by enabling port-channel/LACP management commands using C, **expanding and improving network monitoring and troubleshooting capabilities.**
- Implemented hardware counter configuration on Cisco Firepower devices using C, C++, XML, & IPC, **significantly reducing debugging time** and introducing interface insights for enhanced network monitoring and security measures.

TECHNICAL EXPERIENCE

Nova https://nova-utd.github.io/ The University of Texas at Dallas, Richardson, TX
Project Lead **Sep. 2022 - Current**

- **Lead UT Dallas's autonomous driving research program** to achieve Level 4 full autonomous driving, managing teams of software developers and hardware technicians, outlining goals, delegating tasks, and fostering individual growth.
- **Oversee all aspects of our software, embedded, and hardware systems**, from development to integration to deployment, while ensuring efficiency and adherence to safety measures and proper agile development methodology.
- Collaborate with team members to design and integrate critical algorithmic/engineering solutions, provide technical direction, review code, and deliver constructive feedback.

FIRST Robotics Marquette High School, Chesterfield, MO
Co-Captain, Programming Lead, Design Lead **Aug. 2019 - May. 2022**

- Single-handedly oversaw the development and testing of **computer vision** and **state estimation** algorithms in **Java** using **Tensorflow/Vuforia**, responsible for successful embedded software deployment and sensor calibration.
- Recruited, mentored, and managed a team of **20 students**, delegating responsibilities and fostering collaboration.
- Qualified for the state championship all **3** seasons, winning **8 awards** total emphasizing engineering, design, and outreach.

PROJECT EXPERIENCE

Navigator https://nova-utd.github.io/navigator/ **Sep. 2022 - Current**

- Lead and contribute to the development of the **first open-source, modular, extensive framework** for autonomous driving research, working with **machine learning, computer vision, embedded/firmware systems, sensors, and networking.**
- Use ROS, Tensorflow, and PyTorch to implement industry-leading **Guidance, Navigation, and Control (GNC) algorithms** in C++ & Python onto a software stack built entirely **from scratch**.

ADDITIONAL INFORMATION:

Languages: English, Russian (Intermediate)
Eligibility: US Citizen, Eligible to work in the US for internships and full-time with no restrictions