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*

- Notable Coursework: Data Structures and Algorithms, Computer Architecture, Probability & Stats in CS, Computer Science II
- Extracurriculars: Nova, Association for Computing Machinery (ACM), Varsity Ultimate Frisbee, Intramurals

Stanford June 2020 - Aug. 2020

Non-Degree Seeking (Summer Session)

- Notable Coursework: CS106b (Programming Abstractions)

SKILLS

Programming:	C++, C#, Java, Python, Bash/Shell, XML, CMake, CircuitPython
Frameworks:	ROS, TensorFlow, PyTorch, Docker
Networking:	CAN, Ethernet
Software:	VSCode, Git, Linux, MacOS, Windows, Microsoft Applications, Atlassian, Arduino

PROFESSIONAL EXPERIENCE

Cisco, RTP, NC May. 2023 - Aug. 2023

Software Engineering Intern

- TODO

TECHNICAL EXPERIENCE

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

Team Lead

- **Oversee UT Dallas's autonomous driving research program** by managing teams of software developers and hardware technicians, outlining goals, delegating responsibilities, and promoting a deep understanding of the tasks at hand.
- Lead, contribute, and am responsible for **all aspects of our software and embedded systems**, including managing the software development life cycle, engineering, design, deployment, testing, and safety measures.
- Work closely with other team members to design and integrate effective algorithmic/engineering solutions, provide technical direction, review code, deliver feedback, and ensure proper development methodology and version control.

FIRST Robotics, Marquette High School, Chesterfield, MO Aug. 2019 - May 2022

Co-Captain, Programming Lead, Design Lead

- Single-handedly oversaw the development and testing of **computer vision** and **state estimation** algorithms in **Java** using **Tensorflow/Vuforia** since joining, and worked closely with **embedded software systems** and **sensor calibration**.
- Recruited, mentored, and managed a team of close to **20 students**, delegating responsibilities to individual members separated by a focus on outreach, 3d modeling, building, and/or programming.
- Qualified for the state championship all **3** seasons, winning **8 awards** total, emphasizing the design process, engineering, software capability, problem-solving, community outreach, and overall team strength.

PROJECT EXPERIENCE

Navigator, Nova at UT Dallas https://nova-utd.github.io/navigator/ Sep. 2022 - Present

- Lead and contribute to the development of the **first** open-source, modular, extensive framework for autonomous driving research/use, working with **machine learning models**, **computer vision**, **embedded software, sensors,** and **networking**.
- Use **ROS**, **Tensorflow**, and **PyTorch** frameworks to implement industry-leading **localization**, **perception**, **object detection**, **prediction**, **motion planning**, and **control** 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