John W. Link

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Objective

To obtain a 2023 summer internship in the areas of computer science and engineering where I can utilize my problem solving and strategic thinking abilities to create and implement practical, innovative solutions to global problems

Education

University of Virginia - Charlottesville, VA — Aug 2020 - May 2024
Intended BS Computer Science and BS Computer Engineering — GPA: 3.84/4.0

James Madison High School - Vienna, VA — Aug 2016 - May 2020
Advanced Studies Diploma — GPA: 4.46/4.0

Experience

MITRE Corporation — May 2022 - Aug 2022
Summer Engineering Intern, Edge Computing for Autonomous Vehicles — McLean, VA

- Utilizing edge computing to offload high intensity applications onto networked computers increasing computational overhead
- Experimenting with small scale autonomous vehicles to better understand how they perceive the world

MITRE Corporation — May 2021 - Aug 2021
Engineering Intern, Small Scale Autonomous Data Collection — McLean, VA

- Working with AWS Deepracer to collect and analyze data from autonomous vehicles

MITRE Corporation — Aug 2020 - Feb 2021
Engineering Intern, 3D Printing and Engineering Design — Charlottesville, VA

- Working with 3D Printing and CAD to design solutions for sponsors of MITRE

UVA Mechanical Engineering Rapid Prototyping Lab — Nov 2020 - Present
Technician and Teaching Assistant, 3D Printing and Introduction to Engineering — Charlottesville, VA

- Design and assist with implementation of class activities/projects for first-year engineering courses
- Maintaining and operating the Stratasys 3D printers for all engineering departments

RPG Squarefoot Solutions — June 2019 - Aug 2019
Summer Intern, Alternate Reality Workflow — Vienna, VA

- CAD and AI development to support construction industry product applications
- 3D printing design and support for prototypes and demo models

Projects/Teams

UVA Cavalier Autonomous Racing - Charlottesville, VA - autonomousracing.dev — May 2020 - Present

- Participant in first ever head to head autonomous race in Indianapolis and Las Vegas Motor Speedways
- Researcher involved with simulation and vehicle interface control systems

Virginia Motorsports - Charlottesville, VA - vamotorsports.org — Apr 2021 - Present

- Engineering design advisor for the UVA FSAE team, designing, reviewing, and building a full scale formula car
- Lead researcher for electric transition of FSAE team including prototyping and EV swapping a legends racing car

Nova Labs Makerspace - Fairfax, VA - nova-labs.com, github.com/nova-labs/Nova-I3 — Oct 2015 - Present

- Active participant in Nova Labs 3D printer group responsible for maintaining the community 3D printers
- Volunteer work around the makerspace including teaching classes, building, and maintaining the space

Other Teams

- FIRST Robotics Competition Team 620 : High school robotics program
- FIRST Technology Challenge Teams 6633, 6700, 12787 : Middle and high school robotics program

Technical Skills

Programming Languages: C++, C, Python, Java
ML/AI: Pytorch, Numpy, Pandas, Matplotlib
Modeling & Simulation: Fusion 360, Solidworks, Ansys Software
Operating Systems: Linux, Windows, Apple OS
Certifications: CompTIA A+, S+ and N+ (Not Current)
Interfaces: AWS, Git, ROS, ROS2, Latex

Relevant Coursework

Computer Science: Autonomous Vehicles, Data Structures and Algorithms, Databases, Operating Systems, Computer Networks
Mathematics: Differential Equations, Discrete Math, Probability, Linear Algebra

Personal Interests

- Intramural sports - volleyball, soccer, basketball, flag football
- Travel to over 30 states and 10 countries, experiencing culture and geography
- Formula 1 racing enthusiast
- Making and tinkering with 3D printers, microelectronics, and home automation