Pranav Srinivasan

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Education

University of Maryland - A James Clark School of Engineering — **College Park, MD**

B.S. Mechanical Engineering — Expected Graduation Date: May 2025

Cumulative GPA: 3.943

College Park Scholars: Science, Discovery, and the Universe — Expected Citation Date: May 2023

Technical Experience

Johns Hopkins University Applied Physics Laboratory — **Laurel, MD**

ASPIRE High School Intern — **September 2019 - May 2021**

Anonymizing Vaccine Records

- Explored the popular data anonymization method k-anonymity and its extensions l-diversity and t-closeness to protect individual privacy in health data
- Generated a randomized COVID-19 vaccine record dataset using Python to simulate real medical data
- Modified existing k-anonymity program to anonymize COVID vaccine record dataset
- Nominated and selected to present project at the APL ASPIRE Showcase and gave a 5-minute lightning talk to APL staff and other ASPIRE interns

Networking In The Cloud

- Used the Naval Research Laboratory (NRL)'s CORE (Common Open Research Emulator) network emulation software to emulate network containing 1800 devices
- Used Python to generate XML files to create virtual networking devices on CORE
- Created a network model of multiple battalions in the cloud spanning 3 virtual machines
- Added movement to each node to create a more realistic network environment
- Generated and tested traffic through network using NRL's Multi-Generator (MGEN) Network Test Tool

Skills

Python | SolidWorks | Autodesk Inventor | MATLAB | HTML | Siemens NX | 3D Printing | Microsoft Office

Activities

SEDS@UMD — **College Park, MD**

THEIA Team - Structures/Thermals Subteam — **September 2021 - Present**

- Designing structure/chassis of cubesat and casing for neuromorphic camera in Siemens NX
- Researching designs of 3U cubesats and learning about designing and analyzing space missions
- Using FEA tools in NX to test and simulate loads on the chassis of the cubesat

FTC Robotics — **Ellicott City, MD**

Build Lead (2020-2021 Season) / Builder/ Designer — **September-June 2018-2021 (3 FTC Seasons)**

- Heavily involved in design and construction of robot, with design being done in Autodesk Inventor (in 2019-2020 season) and SolidWorks (in 2020-2021 season)
- Led a group of new builders virtually in the 2020-2021 season as a part of a new team attached to our school's FTC robotics club
- Reached and placed well in the state competition in two consecutive years, and won many awards along the way, including the Inspire Award, given to a team that not only is a strong contender, but also serves the community, in two different competitions