

Pranav Gupta

Great Falls, VA

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As a current college student pursuing dual majors in Mechanical Engineering and Computer Science, my objective is to leverage my strong analytical skills and interdisciplinary knowledge to contribute to innovative projects and solutions. With a proficiency in deconstructing complex problems and synthesizing diverse solutions, I am committed to optimizing designs and enhancing project outcomes. My aim is to apply my expertise and passion for problem-solving to make meaningful contributions in a dynamic professional setting.

Education

Duke University

Bachelor of Science in Engineering

• Mechanical Engineering and Computer Science Double Major.

August 2023 - May 2027

Durham, NC

Technical Skills

Programming Languages Java, Python, C, C++, HTML/CSS

Design Solidworks, Fusion 360, Onshape

Manufacturing Manual Machining, Rapid Prototyping, Composites, MIG Welding, Water Jetting, 3D Printing, Laser Cutting

Analysis ANSYS Workbench

Other Microsoft Office, PC and Mac Software maintenance, Computer Hardware assembly

Engineering Experience

The George Washington University

AI/ML Researcher

Jan 2024 - Present

- Developed an algorithm for Vision-Based Perception with Safety Awareness for UAS Autonomous Landing
- Evaluated a training dataset for the algorithm which included gathering and labeling data
- Assisted in implementing and editing an A* optimal cost path for generating efficient routes.

Duke Motorsports

Powertrain Engineer

Sep 2023 - Present

- Designed and Manufactured a Custom Oil Pan which increased vehicle oil pressure by 50%.
- Manufactured a Custom Fuel Rail using CNC milling which improved overall Engine Fueling.
- Built Engine Dyno setup to gather more accurate Engine Data to use in tuning, which increased performance by 20%.
- Spearheaded an experiment to obtain our radiator mass flow rate and worked with AKG to determine optimal radiator.
- Designed a custom swirl pot to de-aerate the cooling system of our vehicle, allowing it to run more 8% cooler.

Duke University

LabRAT

Jan 2024 - Present

- Advised 30+ engineering students on various academic projects for EGR101 and EGR121.
- Maintained 3D printers, Laser Cutters, and CNC Mills for student use.
- Organized various shop tools to streamline student workflow and project completion.

Oystilter

Founder

Dec 2021 - Jan 2024

- Engineered custom submersible device that is capable of removing over 50% of phosphorus and nitrogen in natural waterways.
- Devised a unique filtration method that is capable of filtering flowing water without electricity.

Additional Work Experience

Valence Robotics

Mentor

Sep 2023 - Present

Kumon Learning

Tutor

May 2019 - Jan 2023

CodefyCS

Executive Director

Dec 2020 - Jan 2024