

ARNAV N. PRASAD

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MECHANICAL ENGINEER & SOFTWARE DEVELOPER

OBJECTIVE: Talented mechanical engineer and programmer seeking a technically challenging position in an organization developing advanced technology

EXPERIENCE

W.L. Gore & Associates

Elkton, MD | March 2021 – Present

New Product Development Engineer

- Designed and implemented predictive system models for hydrogen fuel cell Proton Exchange Membranes (PEMs)
- Constructed chemical and mechanical durability models of PEMs from empirical data and first principles
- Migrated several critical design tools to Python, allowing for a secure, centralized infrastructure

W.L. Gore & Associates

Fair Hill, MD | June 2019 – July 2020

Engineering Intern and Part-Time Engineer

- Developed software to automatically create manufacturing drawings in AutoCAD from design specifications for the Industrial Dry Filtration team
- Implemented mathematical models in Python to simulate pressure equalization through GORE® Vents

University of Delaware

Design Studio – Head of Digital Fabrication

Newark, DE | April 2018 – June 2020

- Assisted students in using shop tools safely and effectively
- Organized and ran the Mechanical Engineering department's digital fabrication lab including 3D printers, laser cutter, CNC router

RECOGNITIONS

University of Delaware Alumni Association

Alexander J. Taylor, Sr. Award | May 2020

- Given to one outstanding student from the senior class, for excellence in service, leadership, and academics

UD Mechanical Engineering Department

Outstanding Senior Award | May 2020

UD Mechanical Engineering Department

Outstanding Junior Award | May 2019

SKILLS

Programming Languages

Python • Java • C++ • TypeScript • MATLAB

CAD/CAM Packages

SolidWorks • Mastercam • AutoCAD • Autodesk Fusion360 • Autodesk Inventor

Tools

Ansys Fluent • COMSOL • Git

Framework Ecosystems

ROS • Angular • React • Android

EDUCATION

University of Delaware

MS, Mechanical Engineering

3.93GPA, Dec. 2020

BS, Mechanical Engineering

3.91GPA, May 2020

LEADERSHIP & SERVICE

President, American Society of Mechanical Engineers (ASME), University of Delaware

May 2018 – May 2020

- Organized academic speakers and industry tours to benefit peer Mechanical Engineering students
- Coordinated and led competition teams in ASME sponsored events

Mentor & Key Volunteer, FIRST Tech Challenge (FTC)

March 2016 – Present

- Mentored high school students in the design process to build and program award-winning robots every school year
- Served in critical roles at FTC competitions, including World Championships, ensuring the event ran smoothly

HIGHLIGHTED PROJECTS

Senior Thesis: Effects of Binary Gas on Second-Mode Instability

- Modeled dissociative "real gas" effects on second-mode instabilities of a hypersonic boundary layer

"Swerve Drive" Robot Chassis

- Designed, built, and programmed a unique holonomic drivetrain
- Practiced skills in SolidWorks, Python, ROS