YASH SAXENA

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EDUCATION

Purdue University | West Lafayette, IN   *Graduating May 2027*
BS Mechanical Engineering | Minors: Math, Finance   *GPA: 3.84*

WORK EXPERIENCE

Michelin   Ft. Wayne, IN
Process Quality Engineer Intern (SolidWorks, Python/Embedded C)   May 2025 – Aug 2025
- Designed material liner repair process automation apparatuses to improve operation safety, productivity, & quality
  - Optimized COGNEX neural network anomaly training through hidden layer heuristics integration
- Proposed & designed auto-centering mechanism for material wind-up to reduce product packaging variation
- Initiated change management & led intern team in designing product rework process (~$25,000 annual savings)

Purdue University – ML for Engineers Lab   West Lafayette, IN
Undergraduate Research Assistant – Neural Network Development (Python, PINN dev)   Jan 2024 – Aug 2025
- Developed machine learning programs to improve fluid flow & heat transfer simulations in free flow scenarios
- Improved iteration learning time by 5% with hidden layer optimization

Florida International University – Robotics Research Lab   Miami, FL
Research Assistant – PID Control Testing (MATLAB/C, SolidWorks)   June 2022 – Aug 2022
- Optimized PID control system for active exoskeleton that helps glovebox operators fight fatigue
- Designed sensor testing enclosure for prototype tests

TECHNICAL EXPERIENCE

American Society of Mechanical Engineers
Director of Finance   May 2025 – Present
- Drafted & manage $80,000+ annual budget across 500+ member organization
  - Manage procurement & internal components, stock, & tools usage – developing power app
- Advise club leadership in technical & overall project scoping
- Developed funding pool for future design projects through industry & academic connections

Chief Engineer   May 2024 – May 2025
- Ideate solutions & troubleshoot issues across 35+ multidisciplinary design projects
- Taught seminars/workshops on rapid prototyping, electronics basics, manufacturing methods, etc.
- Advised design team leadership in technical scoping

Delta Upsilon Grand Prix Team
Team Director & Driver   Aug 2024 – Present
- Driver in 2025 Purdue Grand Prix to sprint race win & 17th out of 74 karts overall in team's rookie year
- Procured & optimizing second new kart for 2026 Purdue Grand Prix
- Raised ~$50,000 in funding to restart & grow team through company & alumni networking

Purdue Formula SAE
Aerodynamics Sub-Team Member & Bodywork System Owner (Siemens NX, Ansys ACP/CFD)   Aug 2023 – Present
- Design & analyze flow conditioning structures (FEA, Ansys ACP/CFD)
- 15% mass reduction through design & composite layup schedule optimization (lightest bodywork in team history)
- Achieved 8% increase in aerodynamic efficiency of 2025 rear wing through beam wing vortex generator design
- Create prepreg & VARTM layup molds for carbon fiber & fiberglass aerodynamic element manufacturing

PERSONAL PROJECTS

StockDuels   Founded Mar 2022
- Founded community service project to improve financial literacy among young adults
- Developed main website (stockduels.onrender.com) & long-term investment potential algorithm (Flask, Python)
- Researched, wrote, filmed, & edited articles & videos demystifying investment concepts & strategies (SEO)

SKILLS, AWARDS, & INTERESTS

CAD Software: Fusion360 (9 yrs), KiCAD (7 yrs), SolidWorks (6 yrs), Siemens NX (3 yrs), Ansys CFD/ACP (1 yr)
Programming Skills: Python, C, C++ (12 yrs), HTML5, CSS, Javascript, (8 yrs) MATLAB/Simulink, Java (6 yrs)

Awards: 1st place internationally in American Scholastic Mathematics Association Annual Contest (2023)
Hobbies: Racing Driver (24 Hours of Lemons, Purdue Grand Prix), Sim Racer (iRacing, F1 E-Sports), TEDx Speaker, Marching/Concert Band, Varsity Swimming