Paul-Elliot Foy

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Mechanical Engineering B.S. 2025 graduate with a 3.9 GPA and 10+ years of entrepreneurial experience, delivering innovative, user-focused solutions to 180,000+ global users, eager to apply proven problem-solving and product development skills to design impactful mechanical systems.

EXPERIENCE

FOUNDER AND SOFTWARE ENGINEER – Opticos Studios   2015-2025

- Created innovative software solutions (GWSL and OpenInWSL) used by over **180,000** professionals, including engineers, showcasing product development skills exceptional among peers
- Identified a critical gap in the market: no user-friendly way to run Linux GUI applications on Windows Subsystem for Linux (WSL). Designed and launched GWSL and OpenInWSL using Python, incorporating feedback from developers to meet their needs
- Drove customer-focused growth by engaging directly with users, providing hands-on support to resolve issues, and delivering continuous product improvements through regular updates, ensuring solutions evolved with user demands
- Founded and Developed Time Squeeze: A Scalable Business-to-Business Time Tracking Software as a Service (B2B SaaS) for engineering, accounting, law, and other consulting firms (written in Dart)
- Demonstrated advanced problem-solving by addressing real-world challenges for a global user base, translating complex technical needs into intuitive, reliable tools that enhanced productivity and user experience
- Leveraged these tools to help fund my mechanical engineering studies

ME SENIOR CAPSTONE PROJECT MANAGER – Virginia Tech and Flowserve Corporation   2024-2025

- Designed, built, and tested magnetic centrifugal pump gearing for senior capstone team project
- Increased mechanical efficiency by 5% by designing custom structural electrical insulation in SolidWorks to reduce eddy currents resulting in a final efficiency of **93%**
- Managed timelines, presented to stakeholders, and collaborated with teammates and suppliers to source tools and materials on schedule
- Validated design iterations through Ansys FEA, prototyping, and testing on custom motor testbed
- Analyzed results with Excel to calculate torque ratios, power output, and mechanical efficiency

PERSONAL ENGINEERING AND HANDS-ON PROJECTS

- Remanufactured Freezer and Vehicle condenser fans. Replaced starters and window regulators (2022-2024)
- Conducted tensile strength tests using Instron and GOM for mechanical design lab (2023)
- Designed, built, tested, and flew remote controlled model aircraft and model rockets (2019-2023)
- Diagnosed and repaired 30-year-old freezer, 30-year-old gas oven, dishwasher, and dryer (2022-2024)
- Replaced 70-year-old underground hot-water and sewage plumbing (2019-2024)
- Conceptualized, designed, and built polycarbonate-walled 400 sq-ft workshop (2023)
- Worked with team to design and construct 20-ft ramp for stroke victim (2024)

EDUCATION

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, VA

- Bachelor of Science, Mechanical Engineering, **GPA 3.9** (Graduated May 2025)
- Awarded $23,240 in scholarships including the SAE Heinz C Prechter Automotive Merit Scholarship
- Additional Relevant Coursework: FEA in Mechanical Design, Robotics and Automation (Kinematics, Trajectory Planning, Control, and Simulation of Robotic Systems with MATLAB and Simulink), Additive Manufacturing with Siemens NX, Welding, Mechanical Design with foundations of GD&T