

Conrad Stabile

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Education

Purdue University - West Lafayette, IN

GPA: 3.4

Bachelor of Science in Mechanical Engineering, Minor in Environmental and Ecological Engineering | May 2025

Master of Science in Mechanical Engineering [Energy and Transport Sciences Laboratory] | May 2027

Work Experience

Thesis Research Student [Energy and Transport Sciences Laboratory] | Purdue University | West Lafayette, IN | January 2025-Present

- Developing AI-driven thermal design tools for high-density lithium-ion batteries to improve efficiency and device safety
- Built a GUI that models thermal runaway behavior from calorimetry data for predictive safety design

Environmental Engineering Intern [Water Services] | CDM Smith | Nashville, TN | May 2025-August 2025

- Updated SCADA and EPA SWMM Rain Gauge data for predictive stormwater calibration for Cleanwater Nashville
- Utilized ArcGIS and record drawings to track infrastructure for project records and future project quote estimates

Fluid Design Intern [Packaging] | Molson Coors Beverage Company | Shenandoah, VA | May 2024-August 2024

- Lowered Quality Holds by Designing and Implementing Automated Hot Flush Systems to Active Bottle Filler Systems
- Improved Water Savings ~1.75M Gallons (monthly) by Designing and Installing Synergex Dispersion System for All Lines

Test Engineering Intern [Semiconductor Up-Screening] | Micross STS | Milpitas, CA | June 2023-July 2023

- Generated Verigy 93K microcontroller testing programs for high reliability defense and aerospace applications
- Helped coordinate air filtration system in Clean Room to account for oil-based contaminants

Leadership Experience

ASME Director [ENERGY Design Team] | American Society of Mechanical Engineering | August 2023-Present

- Led 40+ member team to design, construct, and test "RAINERGY"; yields sustainable drinking water and electrical power
- Started Solar Team and Hydrogen Fuel Cell Team, competing in Solar District Cup and EnergyTech (USDOE Competitions)
- Developed international biogas collaboration project with Universidad San Francisco de Quito ASME chapter [Ecuador]

Team Projects

Purdue Electric Racing [Battery Engineer] | Society of Automotive Engineers | July 2025-Present

- Advancing battery pack redesign with cell modeling, packaging layout, and safety analysis for compact high-power systems
- Executing battery testing, data collection, and CAD integration to optimize thermal performance and high-voltage safety

PSP Liquids [Structural Engineer] | Purdue Space Program | August 2023-May 2024

- Set Electrical Routing and System Harness precedent for "CraterMaker Special" using NX
- Modeled rocket trajectory and stress force calculations during and after lift-off using RASAAero II and Matlab

Engineers Without Borders [Structural Engineer – Rubona, Rwanda] | EWB | August 2023-May 2024

- Implemented multiple Water Distribution Systems in Rubona, Rwanda in collaboration with community partners
- Utilized CAD, Fluid dynamics, Geotechnics, Construction Management, etc. for design review and system planning

Personal and Professional Skills

- **CAD** (ANSYS Fluent + Discovery, Autodesk Fusion + AutoCAD, SolidWorks, Siemens NX, RASAAero II, Bluebeam Revu, ArcGIS, EPA SWMM)
- **Professional and Scholastic Mentoring**
- **Strategic & Personable Writing**
- **Coding** (Matlab, Python, Java, C, Open AI API, Excel)
- **3D Rendering** (Unreal Engine 5, Blender)
- **AI Generative Design & Electrical Routing**
- **Social Media Market Engineering**
- **Emotional Intelligence & Patience**