William deLone Hutter

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY **Expected May 2027**
Bachelor of Science in Mechanical Engineering, minor in Materials Science; **GPA: 3.82**

Selected Coursework: Mechanics of Materials • Statics • Heat Transfer • Circuits • Engineering Simulations • Fluids • System Dynamics • Lasers and Photonics • Electronic Materials for the Information Age • Waves and Oscillations • Electromagnetism

Roxbury Latin School, West Roxbury, MA **Graduated Jun 2023**
Magna Cum Laude; **GPA: 3.9**

LEADERSHIP EXPERIENCE

Cornell Racing FSAE Team, *Battery Subteam Lead,* Ithaca, NY **Jun 2024 – Present**

- Lead a subteam of 10 to design, manufacture, and test 543V pouch cell battery pack for electric FSAE racecar
- Develop and implement laser welding procedures to connect nickel coated copper cell tabs in high current path
- Reduce mass by 11.5lbs, volume by 15%, and internal resistance by 44% through cell selection and packaging
- Determine power, capacity, and thermal requirements for pack using custom MATLAB simulations of racecar
- Integrate battery modules, safety electronics, and battery structures throughout design and manufacturing
- Test electrical and thermal performance of pack through driving campaign and DCIR testing

Cornell Project Teams, *Operations Assistant*, Ithaca, NY **Aug 2025 – Present**

- Uphold safety standards for welding, composites manufacturing, and handling flammable materials in workspace
- Consult teams working with high voltage devices on best practices to ensure safe and foolproof designs
- Construct structures to augment fabrication area including an oven extension, and laser welding safety enclosure
- Maintain supply of safety equipment and coordinate purchasing to restock weekly

ENGINEERING EXPERIENCE

Xelera Research, *Engineering Intern*, Ithaca, NY **May – Aug 2025**

- Design and produce two SF6 tanks to enclose a 360kV power supply and a 50MΩ current limiting resistor using CAD, statics calculations, and FEA to withstand external pressures of 1 atm and internal vacuum
- Characterize electric field in tank with Poisson Superfish to remove field concentration points and prevent arcing
- Select and integrate feedthroughs into tank that satisfy the voltage and current requirements of the power supply
- Machine high voltage connectors, flanges and mounting structures using 3-axis CNC, lathes, and manual mills
- Develop computer vision algorithm with OpenCV Python to measure flow width after nozzle and detect droplets

Cornell Racing FSAE Team, *Battery Subteam,* Ithaca, NY **Feb 2024 – Jun 2025**

- Devised carbon fiber composite alternatives to sheet metal protective structures for the battery, by performing 3-point bending, tensile testing at 60°C, and perimeter shear testing on 15 test panels
- Engineered protective sheet metal structure and mounting for 100lb battery using CAD, machining, and welding
- Analyzed structural integrity of mounts with hand calculations and ANSYS FEA, removing over 1lb of weight

GI Windows, *Research and Development Intern,* Westwood, MA **May – Jul 2024**

- Prototyped device to stabilize an opening in intestine for bypass surgeries alongside a team of six engineers
- Modeled dozens of 3D printed silicone injection molds on SolidWorks, and created over 50 prototypes
- Formulated process to shape-set and laser weld nitinol rings, tested process by making 300 rings
- Met with manufacturers to scale nitinol ring manufacturing process up for clinical trials

SPECIALIZED SKILLS

Technical: CAD, drawings, GD&T, Inventor, SolidWorks, Fusion, ANSYS, MATLAB, statics, dynamics, composites, CLT, lathes, mill, CAM, CNC, laser welding, sheet metal, 3D printing, microcontrollers, GitHub, Python, C#, Java

ACTIVITIES/INTERESTS

Cornell Maker Club: Use workspaces with 3D printers and laser cutters to complete personal engineering projects
Kiteboarding, Lockpicking, Crossword Puzzles, Snowboarding, Weightlifting, Rock Climbing, Fishing