Brian Glen

Undergraduate electrical engineering major looking to apply my skills and experiences to build tech that makes an impact.

Hudson, OH 44236

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I am a student, engineer, and maker. I have a passion for all things moving - whether it is vehicles, airplanes, or robotics. In my spare time I am an automotive enthusiast; for me it is the perfect intersection of art, engineering, and design. I am also a sailor, and I try to bring the same sense of adventure, collaboration, and planning required in sailing to whatever project I am working on.

Willing to relocate: Anywhere
Authorized to work in the US for any employer

Work Experience

Electrical Engineering Intern
LTA Research & Exploration - Mountain View, CA
May 2019 to Present

• Developed prototype STM32 hardware and software to assist an electric aerospace project.
• Performed circuit/PCB design in KiCad, SPICE circuit modeling & analysis, BOM optimization, documentation, debugging and physical implementation.
• Developed electrical power topology for small prototype aircraft, conducted weight studies, designed wire routing and published an internal trade study.
• Designed a hydrogen fuel cell active power mixing circuit for sustainable flight research.
• Designed a custom battery management system for multiple parallel lithium ion battery packs; built load switches and protection circuits.

Electrical Engineering Internship
Specialty Magnetics LLC. - Macedonia, OH
June 2015 to August 2018

• Performed quality control, testing, and failure analysis of power transformers, inductors and reactors.
• Research on zero-sequence impedance for shape optimized electrical design of neutral grounding reactors.
• Introduction to CAD design and mechanical design; detailed final designs and created customer drawings and schematics.
• Experience on the manufacturing floor with test equipment and hand tools.

Education

Bachelor of Science in Electrical Engineering
The University of Akron - Akron, OH
August 2019 to June 2022

Skills

- PCB Design (KiCAD, Diptrace)
- CAD (Solidworks)
- Embedded Programming (STM32 with C/C++)
- MATLAB
- Mechanical Design
- Debugging
- NI Labview
- Manual Machining & Fabrication (vertical mills, lathes, waterjets, laser cutters)
- Test Equipment Operation (oscilloscopes, digital logic analyzers, hipoters, surge testers)
- Python

Links

http://brianglen.com

Awards

MakeHarvard - Best Hardware Hack
2021

Developed compliant mechanisms to simplify the construction of 3D printed hand prosthetics.

NASA Space Apps - Global Nominee
2019

Pitched with a team of four a business proposal to make the Shenzen electronic markets more available to US-based electronic enthusiasts.

HAkron 4K - 2nd Place Overall
2019

Used OpenCV machine learning and a microcontroller to mimic a USB mouse device and autonomously control a computer to play a video game.

HAkron 3000 - Category Prize
2018

Modified a 3D printer in to a modular pastry icing machine.

HAkron 2.0 - Category Prize
2017

Developed compliant mechanisms to simplify the construction of hand prosthetics.