

Landon P. Doughty

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EDUCATION

Rice University - B.S. Electrical Engineering, **GPA: 4.0**
Trustee Distinguished Scholar & President's Honor Roll

Expected May 2029

Relevant Coursework: Digital Logic Design, Random Signals, Physical Electronics, Signals, Systems, & Transforms, Wearable Biosensors. Intro to O.R. and Optimization.

RELEVANT EXPERIENCE

Fundamentals of Electrical Engineering Peer Educator and Teaching Assistant **August 2026 - Present**

- Lead weekly office hours and drop-in sessions, providing one-on-one and group support on fundamental concepts.
- Assist students in understanding complex circuit theory and signal processing through clear explanations and guided practice.
- Collaborate with course instructors to identify common student challenges and develop supplementary materials.

Rice Integrated Systems and Electromagnetics Lab - FPGA design and ASIC test intern **May 2026 – Present**

- Architect a custom FPGA data communication system for interface with a custom Neural Interface ASIC.
- Designed a low-power, space constrained PCB, integrating an FPGA, power management, high speed USB, and more.
- Tested and integrated a custom UWB ASIC for transcranial neural interface data transmission.

Rice ECLIPSE - Active Flight Stabilization Lead **August 2025 – Present**

- Lead a cross-functional team in the development of active flight stability systems using controlled fins for high-power rocketry.
- Spearhead end-to-end design of custom flight control software and PCBs, executing iterative testing cycles to ensure flight performance and safety.
- Coordinate semiweekly design reviews and group testing to validate engineering decisions and project timelines.

LEADERSHIP

Hanszen Residential College Beer Bike Team Captain **May 2026 – Present**

- Coordinate logistics, training schedules, and safety protocols for a collegiate racing team, ensuring success in high stakes events.
- Oversee complex mechanical maintenance and inventory for team equipment and bikes, maintaining equipment readiness.
- Serve as the primary liaison between the team, college leadership, and university administration to manage recruitment and external communications.

Doerr Institute - Leading As a First Year Leadership Cohort **September 2025 – May 2026**

- Engaged in intensive leadership development coaching, identifying key growth areas in delegation, conflict resolution, and trust-building.
- Applied feedback from professional leadership developers and peers to improve cross-functional team management and adaptability skills.

SKILLS

Software & Programming: Python, C++, Java, MATLAB/Simulink, LaTeX, HTML/CSS

Electrical Engineering: PCB Design (KiCad), FPGA Design, Circuit Simulation (LTspice), SMT/THT Soldering

Mechanical & Design: SolidWorks, Onshape, FDM 3D Printing & Slicing, Laser Cutting, Shop Tools

Embedded Systems: STM32, ESP32, Raspberry Pi