

Wilson Harper

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wilsonharper.net

Houston, TX

Education

Rice University

Class of 2029

- B.S. Electrical & Computer Engineering; Minor in Entrepreneurship
- Elected as New Student Representative in Martel College Parliament

Davis High School

2021 - 2025

- 3.99 GPA and IB Diploma, earned Washington State Seal of Biliteracy in Spanish

Engineering Experience

Incoming Embedded Engineering Intern, RTX BBN Technologies

2026

- Will prototype embedded multi-domain systems and PNT algorithms for harsh environments

Avionics Design, Rice Flight

2025 - Present

- Leading design of thrust test stand to measure efficiency for UAV optimization
- Integrating Arduino with load cells, current sensors, and UAV hardware to collect/analyze data

Active Fin Stabilization, Rice Eclipse Rocketry

2025 - Present

- Designing avionics for reliable rocket active fin stabilization system
- Integrating RP2350 and I2C/UART sensors on custom PCB to control servo-actuated fins
- Active fin stabilization system will go on space-shot rocket to exceed the Kármán line

Chapter President & UAV Team Captain, Technology Student Association

2018 - 2025

- Served as chapter president for 50+ students and won six state-level awards
- Led design of position-holding UAV in GPS-denied environments using optical flow and LiDAR
- Designed a modular 3D-printed airframe and servo-actuated gripper to move payloads
- Implemented EKF sensor fusion, remote telemetry, and power distribution systems

Researcher, MIT Lincoln Laboratory RISE

2024

- One of ~4% of applicants selected for DoD-sponsored free research experience
- Researched, built, and programmed Doppler and synthetic aperture radars
- Gained experience in soldering, CAD, signal processing, and research, mentored by Lincoln Labs staff

Professional Experience

Teaching Assistant, BUSI 361: Communication for Entrepreneurs

2026

- Facilitating instruction on communication, conflict resolution, networking, and workplace dynamics
- Coaching students on public speaking to effectively communicate complex concepts

Summer Camp Staff, Spokane, WA

2025

- Responsible for up to 65 guests at remote location accessible only by boat
- Learned high-stakes logistics planning due to remote environment
- Duties ranged from comforting homesick children to cleaning large amounts of septic waste

Skills

- **Software:** Python, CAD (Fusion, OnShape), avionics, ArduPilot, MS Office (Word, Excel, Powerpoint)
- **Hardware:** LiDAR, radar, telemetry, sensor integration, UAVs
- **Tools:** soldering, 3D printing, CNC routing, hand tools, multimeters, breadboards