

DARIAN DOUGLAS

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EDUCATION

Purdue University

West Lafayette, IN

College of Engineering, John Martinson Honors College, GPA: 3.70/4.00

EXPERIENCE

Virginia Tech Team Malawi – Blacksburg, VA

Feb 2023 – May 2025

- Engineered a drone system to sample water in Malawi for schistosomes on a diverse team of undergraduate researchers, Used CAD to design and machine parts for the drone
- Developed worksheets and lesson plans to educate youth in Malawi on drone technology.

University of San Diego STEAM Academy – San Diego, CA

July 2025

- Facilitated STEM education for over 50 children aged 11-16
- Led sessions in CAD, Arduino robotics, 3D printing, origami, and several other STEM activities.

Synergies of Agricultural and Biological Engineering Research – Purdue University

Sep 2025 – Present

- Designing a plasmid to further explore how human gut microbiota work

Predictive Science Laboratory – Purdue University

Jan 2026 – Present

- Currently working under a PhD student to design an algorithm to predict and detect potential damage to lunar habitats using artificial intelligence

PROJECTS

MACRO Project – Purdue University

Aug 2025 – Dec 2025

- Worked on a team to develop a prototype for a Mars Cargo Mobility System (MACRO) that could follow a line, traverse obstacles, and drop off cargo in their correct orientation.
- I was responsible for building the chassis of the rover and programming it using Python on a Raspberry Pi
- Outcome: Robot worked mostly as expected during the demo, but line-following algorithm needed a bit more work

Cubes in Space – Virginia Beach, VA

Mar - July 2025

- Designed an experiment testing the feasibility of electroplating PLA plastic to protect it from cosmic radiation
- Got my experiment launched into Low Earth Orbit on a sounding rocket for the RockOn mission in June of 2025
- Outcome: Gold protected the 3D printed pieces from radiation much more effectively than copper, as evident in the comparable change in structural integrity before and after launch.

LEADERSHIP/ACTIVITIES

Caribbean Student Association

Club Member (Sep 2025 – Present)

- Helped organize events showcasing Caribbean culture on Purdue's campus

Purdue Space Program (Satellite subteam)

Mission Operations and Planning (Sep 2025 – Present)

- Worked on a team to plan a mission that entails sending a CubeSat into orbit with a payload targeting different market segments

Purdue Orbital

Flight Operations Team (Sep 2025 – Present)

- Currently collaborating with the flight termination team to design a device that automatically terminates the flight of a weather balloon after launching a rocket from a certain altitude

SKILLS

DARIAN DOUGLAS

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Technical: Computer-Aided Design, 3D Modelling, Technical Writing, 3D Printing, Power Tools, Python and C Programming, Team Building, Project Management