

AARON J. KINGSLIEN

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EDUCATION

Georgia Institute of Technology, Atlanta, GA

May 2028

- Aerospace Engineering | Gold Scholarship Recipient (Top 1% at Georgia Tech) | GPA - 4.0

EXPERIENCE

Aerospace Robotics Laboratory, Undergraduate Researcher

May 2026 - Present

- Independently redesigned and integrated a rover's chassis and drivetrain, reducing mass by 20% and increasing the max climbing angle by 83%, while improving wire routing and subsystem accessibility.
- Leading the development of AeroLatch, a modular docking mechanism enabling airborne drone assemblies
- Engineering autonomous mid-air battery transfers between drones to extend UAV mission endurance

NASA Intern, Research Team Lead, and Mentor

May 2023 - Present

- Designed, built, and flight tested a lunar dust storm apparatus for NASA's Zero-G Research Program as 1 of 4 students selected, generating data that identified Kevlar as the most regolith-resistant spacesuit fabric for Artemis
- Led NASA SEES's Moon Exploration and Habitation project as the Team Lead in modeling a lunar research base, presenting findings as first author at the 2023 American Geophysical Union in front of 2000+ people
- Developed Python training modules integrated into NASA SEES onboarding to train all incoming intern cohorts

Design/Build/Fly, Propulsion Lead

October 2025 - Present

- Optimized the propulsion system for the 2026 SAE Micro Class competition by improving thrust-to-weight efficiency by 18% from the previous year, contributing to a 1st place flight finish.
- Engineered Georgia Tech's final competition delta wing aircraft in SolidWorks and validated flight-ready design choices through CFD simulations in ANSYS and dynamic thrust testing in our low-turbulence wind tunnel
- Built a wind tunnel test rig with sensors to plot thrust curves for variable wing sweep angles and propellers

Southwest Research Institute (SwRI) Intern, Aerospace Engineering Intern

May 2024 - July 2024

- Designed polarimetric imager models in SolidWorks with a team of NASA PUNCH mission (Polarimeter to Unify the Corona and Heliosphere) aerospace engineers to map the outer corona of the Sun
- Performed assembly, integration, and testing (AI&T) procedures on 1 wide-field and 3 near-field imagers

Georgia Tech Experimental Rocketry (GTXR), Propulsion and Mini Motors Team Lead

August 2025 - May 2026

- Conducted hydrostatic tests to determine motor pressure limits, informing safe operating thresholds for flight
- Prototyped and manufactured a competition rocket engine from the ground up, leading a team of three
- Executed carbon fiber tensile and pressure testing to design a lightweight motor case

Georgia Tech Office of Scholar Programs, Undergraduate Assistant

September 2025 - Present

- Managed the active Excel-based scholarship recipient tracking system, performing validation checks, and established a standardized data organization format for consistency across future semesters
- Handled high-trust student records and selection processes with strong attention to traceability and confidentiality

LEADERSHIP & ACTIVITIES

Team USA BMX Racer, Athlete and Licensed Coach

January 2015 - Present

- Represented Team USA in the 2024 and 2025 BMX World Championships and earned 6 State Championship titles
- Coached weekly 2-hour clinics at Capitol City BMX and mentored riders through the nonprofit 1st Generation BMXer

Georgia Tech Cycling, Mountain Bike President

August 2025 - Present

- Organized weekly team trainings designed to onboard new riders and continually challenge current members
- Created gtcycling.com to create a team calendar, communicate race logistics, and support sponsorship outreach

SKILLS

- **CAD & Simulations:** SolidWorks (assemblies, motion studies, drawings), ANSYS (FEA, structural validation), AutoCAD
- **Manufacturing:** CNC machining (mills, lathes, waterjets, laser cutters), carbon fiber fabrication, 3D printing
- **Programming & Software:** Python, MATLAB, Java, Excel, HTML, and Microsoft Office Suite