Taran Govindu

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EDUCATION

Georgia Institute of Technology Expected Graduation May 2028

Bachelor of Science in Aerospace Engineering *4.0 GPA*

- Relevant Coursework: Statics, Engineering Materials, Intro to AE, MATLAB, Engineering Graphics, Physics: E&M, Physics: Mechanics
- Online Coursework: CornellX ENGR2000X – A Hands-on Introduction to Engineering Simulations
  - Learned to define, set up, and analyze CFD and FEA simulations in Ansys Fluent and Mechanical

EXPERIENCE

Propulsion Feed System and Simulation Engineer Jan 2026 – Present

Propulsive Landers *Atlanta, GA*

- Designing a custom servo-actuated ball valve in SolidWorks for the propulsion feed system (PFS), reducing total PFS mass by ∼10% while enabling finer regulation of nitrogen flow and meeting rocket launch mass constraints
- Performing component trade studies for the propulsion feed system by evaluating cost, mass, material compatibility, and performance limits, informing part selection to support reliable operation and overall system development
- Developing a high-fidelity rocket dynamics simulation in Rust to test guidance and control algorithms, modeling thrust, aerodynamics, and control interfaces in collaboration with structures and GNC teams

Co-Founder and Engineer Sep. 2025 – Present

FluxSpace *Atlanta, GA*

- Accepted to Georgia Tech's Idea to Prototype (I2P) program with $500 in funding and placed in the top ∼10% of YC Winter 2025 for idea of autonomous structural inspection drone and analysis software
- Building a virtual drone autonomy testbed with Python and JMavSim to simulate inspection missions, enabling early development of path-planning algorithms before hardware prototyping
- Leading customer discovery with construction and facilities teams to identify key workflow pain points, shaping system requirements for autonomous indoor mapping and inspection
- Collaborating with a co-founder developing data processing algorithms to convert raw magnetometer sensor measurements into interpretable structural maps

Aerodynamics Engineer Aug 2025 – Jan 2026

Hytech Racing *Atlanta, GA*

- Modeled and evaluated rear wing airfoils to maximize downforce and minimize drag by creating designs in CATIA and running CFD analyses in Ansys Fluent, comparing aerodynamic data to previous wing iterations
- Ran mesh refinement studies and parametric sweeps to evaluate aerodynamic sensitivity to angle-of-attack
- Collaborated with the chassis and suspension teams to integrate aerodynamic loads into structural constraints, contributing to testing plans and performance validation on Formula SAE team

PROJECTS

Conservation Drone Lead Engineer October 2024 – May 2025

- Led a team in building a drone from scratch by teaching CAD (Fusion 360/SolidWorks), aerodynamics, electronics (soldering), manufacturing (3D printing), and assembly, resulting in a functional conservation multirotor drone
- Improved system reliability by integrating custom-designed components with flight hardware, and configuring flight controller with ExpressLRS, ensuring stable and repeatable performance

Exascale CFD VIP @ Georgia Tech Jan 2026 – Present

- Developing a 2D Burgers' equation solver in Python and C++ to study nonlinear advection–diffusion behavior, implementing modular numerical schemes with a switch-based architecture to support comparison of stabilization methods
- Exploring neural-network-assisted linear artificial viscosity methods to improve numerical stability and shock handling, benchmarking learned approaches against traditional schemes

Skills

Aerospace & Robotics: UAV Systems, Flight Control, Sensor Integration, Autonomous Systems, Prototyping/Testing
Simulation & Analysis: Physics-based Simulation, Numerical Methods, System-level Modeling
CAD & Mechanical: SolidWorks, CATIA, Fusion 360, Ansys Fluent, Ansys Mechanical
Programming: Python, Java, MATLAB, Rust, C++