

# Aniket Martins

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## Education

**Cornell University** - BS Mechanical Engineering | Expected May 2027

**Campus Involvement:** Air Force ROTC, Aerospace Adversary Lab, Brooks Tech Policy Institute, Cornell Catholic Community

**Honors:** Boren Scholarship, Meinig Family Cornell National Scholar, Laidlaw Scholar, Syska Hennessy Group Scholarship

**Arab American Language Institute in Morocco** - *Meknes, Morocco* DoD Project Global Officer Scholarship Summer 2024

## Research and Technical Projects

**Researcher, Aerospace Adversary Lab, Ithaca, NY**

**Aug 2025 - Present**

- Conduct research on unmanned aerial systems (UAS) for national security applications, with a focus on platform design, modularity, operational employment, and their evolving strategic relevance to defense priorities.
- Build a systems engineering taxonomy of UAS fault modes to inform military decision-makers with technical insight

**Junior Fellow, Tech Policy Institute, Ithaca, NY**

**Mar 2025 - Present**

- Research emerging concept of algorithmic warfare by analyzing how computational and data-driven decision cycles have reshaped the temporality and speed of modern and future combat operations
- Curate content for monthly newsletter reaching ~150 subscribers, synthesizing accomplishments of 40+ Fellows
- Assist social media strategy, edit policy reports, and coordinate events and administrative logistics.

**Airframe Engineer & Safety Lead, Cornell University Unmanned Air Systems, Ithaca, NY**

**Oct 2023 - May 2025**

- Design, fabricate, and test carbon-fiber composite eVTOL UAS airframe (10ft) using vacuum-bag wet layup with carbon fiber, fiberglass, honeycomb cores, and 3D-printed components
- Engineered lightweight wiring clip system reducing mass 86%, improving serviceability in eVTOL wiring harnesses
- Developed modular tail-to-tail connector reducing weight 14%, streamlining assembly and maintenance
- Deliver technical design reviews to 70-member team, justifying decisions with calculations, data, and simulations
- Coordinate team safety by completing paperwork and hazardous waste forms and ensuring proper lab safety/cleanliness

**Research Intern, Student Science Training Program, Gainesville, FL**

**Jun 2022 - Jul 2022**

- Modeled Dragon Capsule reentry in COMSOL to evaluate edge thermal loads and guide shield geometry selection
- Applied microfluidic coolant system concepts from Nanostructured Energy Systems Lab to PICA-X heat shield material to explore potential improvements in atmospheric reentry thermal regulation
- Awarded 'Best Presentation' out of ~50 researchers for clarity, engagement, and technical rigor in final presentation

## Leadership & Professional Engagement

**Cadet, Cornell University Air Force ROTC Detachment 520, Ithaca, NY**

**Aug 2023 - Present**

- Commit 8+ hrs/wk to leadership development, military training, and physical fitness; participate in Brigade Color Guard
- Plan and execute outreach events at local universities to recruit talent and represent the Department of the Air Force
- Led \$5k duffel bag procurement, LinkedIn page, locker assignment, Space Force guest speaker for 15+ cadets
- Awards: \$10k Flight Scholarships; Achievement Medal; Leadership, Team Player, Warrior Spirit, and Fitness Awards

**Director of Training, i5 Space, U.S. Air Force Academy, CO**

**Jul 2024 - Present**

- Lead cross-functional team to implement cybersecurity, space education and research programs for 1000+ cadets/students
- Launched program to connect senior Space Force officers with cadets for Q&A, successful at 4 schools and 100+ students
- Manage external partnerships, collaborating with Space Force JROTC, Space Force Association, other industry/academic stakeholders to create value for i5 members and middle/high school mentorship opportunities
- Writing policy paper on DoD space asset allocation, integrating technical and strategic considerations

**Student Leadership Team, Cornell Catholic Community, Ithaca, NY**

**Aug 2023 - Present**

- Support weekly and special liturgies as Altar Server, Eucharistic Minister, Usher, and Acolyte
- Managed \$1500 budget and led full-cycle planning for inaugural Cornell Catholic & Sikh Student Association interfaith dinner, coordinating outreach, logistics, negotiated vendor contract, and cross-cultural engagement for 50+ attendees

## Skills

**Technical:** MATLAB, Python, Solidworks, Autodesk Inventor, OpenRocket, COMSOL Multiphysics, Ansys

**Hardware:** Laser Cutting, 3D Printing, Composite Manufacturing (Layups), Soldering, Carpentry, Hazardous Material Safety

**Languages:** English & Hindi (fluent); French (intermediate); Latin, Modern Standard Arabic (elementary)