ADAM CTVERAK

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EDUCATION

Stanford University — **Palo Alto, California**
Master of Science in Aerospace Engineering — September 2024 – March 2026

- **Awards:** National Security Innovation Scholarship
- **Relevant courses:** Spacecraft Design Laboratory, Applied Aerodynamics, Applied Machine Learning, Engineering Optimization, Spacecraft Electric Propulsion, Investment Science, Directed Reading in International Policy, Hacking for Defense, Aerospace Ventures

Florida Institute of Technology — **Melbourne, Florida**
Bachelor of Science in Aerospace Engineering, Minor in Management — August 2020 – May 2024

- **Honors:** Summa Cum Laude
- **Awards:** Outstanding Student of the Year, Distinguished Student Scholar
- **Relevant courses:** Solids Modeling and 3D Mechanical Design Principles, Aerospace Structural Design, Mechanics of Materials, Computational Techniques, Space Mission Engineering, Space Vehicle Control, Rockets & Mission Analysis, Aerospace Experimentation, Spaceflight Mechanics

PROFESSIONAL EXPERIENCE

HyperWatch Technologies | Defense Tech Startup — **San Francisco, California**
Co-founder — March 2025 – November 2025

- **Mechanical integration & prototyping:** Co-founded HyperWatch and led systems and mechanical integration for a high-altitude infrared search-and-track (HAIRST) platform to detect hypersonic missiles, advancing the concept from TRL 1 to TRL 5 (field-tested prototype).
- **Test engineering:** Planned and carried out 4 flight test campaigns, collecting and analyzing flight-test data to characterize system performance and de-risk high-altitude operations.
- **Fundraising & government contracts:** Secured an $80,000 Defense Innovation Unit award and $250,000 in venture capital, while leading competitive proposal efforts for AFWERX SBIR and Missile Defense Agency MAA solicitations to pursue government contracts.

Astroport Space Technologies | Lunar Infrastructure & Space Construction — **San Antonio, Texas**
Engineering Lab Intern — May 2023 – August 2023

- **Materials processing:** Under a NASA SBIR lunar landing pad project, used induction heating to melt and sinter CSM-LHT-1 lunar regolith simulant into monolithic test bricks for a lunar landing pad demonstrator.
- **Mechanical & thermal testing:** Built a test matrix varying peak temperature and dwell time; ran uniaxial compression tests showing the best process produced bricks 54% stronger than launch pad concrete at NASA Kennedy Space Center.
- **Data analysis:** Mapped compressive strength versus thermal cycle parameters to identify the optimal melt/sinter window and provide process setpoints for follow-on lunar pad prototypes.

Bell Textron | Aerospace & Defense — **Prague, Czech Republic**
Engineering Intern — May 2021 – July 2021

- **Technical documentation:** Reviewed and updated engineering process documents for rotorcraft maintenance and structural engineering to better capture regulatory requirements, technical detail, and quality controls.
- **Manufacturing & maintenance:** Worked with maintenance and engineering teams to align process flows with real repair and modification practices, reducing ambiguity in structural workflows and improving maintainability.
- **Cross-functional collaboration:** Planned and facilitated workshops to train maintenance and engineering staff on updated processes, supporting consistent application of standardized procedures across teams.

Frentech Aerospace | Aerospace & Defense — **Brno, Czech Republic**
Project Engineering Intern — December 2018 – July 2020

- **Spacecraft structures & mechanisms:** Managed technical work packages for the ESA/Thales Alenia Space Fine Rotary Actuator, a precision space mechanism, reviewing design documentation and ensuring alignment with performance requirements.
- **Project management:** Coordinated international suppliers on hardware, documentation, and test readiness while tracking cost and schedule, leading preparation for Critical Design Review and enabling the project to pass CDR and transition from Phase 2 to Phase 3.
- **Manufacturing:** Spent 6 months rotating through assembly, tooling, quality control, and CNC mill/lathe stations in the manufacturing plant to understand process capabilities and manufacturability constraints for precision space hardware.

SKILLS

Programming: MATLAB, Python, Arduino, R
CAD & Analysis: Creo Parametric, SolidWorks, Ansys, Fusion 360, AutoCAD, Rhino 3D, NX, Catia, Abaqus
Software: Microsoft Word, Excel, PowerPoint, Adobe Photoshop, Illustrator, After Effects