OWEN D. SHARP

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US Citizen | **Security Clearance**: Interim Secret (Inactive)

EDUCATION

Cornell University — **Ithaca, NY**
Expected Graduation May 2026

Bachelor of Science in **Mechanical Engineering**
Minor in **China & Asia-Pacific Studies**

Technical University of Denmark — **Lyngby, Denmark**
Exchange Student — Spring 2025

RELEVANT COURSEWORK

Space Systems Engineering | Finite Element Analysis for Mechanical & Aerospace Design | Thermodynamics | System Dynamics | Heat & Mass Transfer | Stochastic Adaptive Controls

TECHNICAL SKILLS

CAD: SolidWorks, Fusion 360 | Simulation/Analysis: ANSYS, COMSOL, MATLAB/Simulink, LabVIEW | Programming: Python, Java, JavaScript | Systems & Tools: Linux, PuTTY, Microsoft Office, oscilloscopes, DMMs | Familiarity with aerodynamics, orbital mechanics, flight mechanics, propulsion systems, aerospace materials (aluminum and titanium alloys, carbon fiber composites), vibration analysis, test scripting | Mandarin Chinese (oral proficiency)

INTERNSHIP EXPERIENCE

Lockheed Martin - Rotary & Mission Systems — **Liverpool, NY**
Systems Engineering Intern — June - August 2025

- Assisted with radar regression testing and data-collection events; updated test procedures and checklists to improve clarity and repeatability.
- Built and maintained analysis tools for radar data; fixed recurring bugs, generated automatic summaries, and produced visuals to help engineers and technicians identify anomalies, expediting troubleshooting and analysis.

Sensata Technologies — **Attleboro, MA**
Mechanical Design Intern — June - August 2024

- Designed and prototyped a new electric vehicle battery component, enhancing current-carrying performance and reducing cost.
- Created CAD models in SolidWorks and built a test rig capturing temperature and electrical resistance data for 24 prototypes simultaneously.
- Analyzed test data and performed structural analysis to guide design changes; produced bill of materials, cost estimates, and technical deliverables for review.

PROJECT EXPERIENCE

ODIN Arctic Surveillance Mission — **Technical University of Denmark**
Final Project - Space Systems Engineering — May 2025

- Designed the onboard flight computer for mission sequencing, payload tasking, data handling, and Telemetry, Tracking & Command (TT&C), integrating with the Attitude Determination and Control System (ADCS), Electrical Power System (EPS), and communications.
- Developed thermal control strategy (MLI, radiator sizing, conduction paths) to maintain avionics and Synthetic Aperture Radar (SAR) within operational limits in variable orbital environments.
- Delivered a Pre-Phase A concept for a dual-satellite C/X-band SAR mission to an industry review panel.

Proportional-Integral-Derivative Satellite Attitude Controller Simulation — **Cornell University**
Final Project - System Dynamics — December 2024

- Modeled and implemented a PID control system for satellite attitude stabilization in MATLAB, accounting for gravity-gradient torques.
- Simulated performance under nominal and exaggerated disturbances in geostationary and low-Earth orbits; optimized controller gains for stability and precision.

RESEARCH EXPERIENCE

Avedisian Fuel Combustion Lab — **Cornell University**
Research Assistant - Mechanical and Aerospace Engineering — January - May 2024

- Reinforced experimental apparatus for repeated high-impact testing, enabling microgravity combustion studies.
- Investigated soot formation in droplet combustion; collected data for peer-reviewed publication.

MEMBERSHIPS

ASME Member | Heritage Chair, Pi Kappa Phi Fraternity | Cornell Boxing Club