

OWEN D. SHARP

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US Citizen | Security Clearance: Interim Secret (Inactive)

EDUCATION	Cornell University Bachelor of Science in Mechanical Engineering Minor in China & Asia-Pacific Studies Technical University of Denmark Exchange Student	Ithaca, NY Expected Graduation May 2026 Lyngby, Denmark 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 <i>Systems Engineering Intern</i> <ul style="list-style-type: none">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 <i>Mechanical Design Intern</i> <ul style="list-style-type: none">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.	Liverpool, NY June - August 2025 Attleboro, MA June - August 2024
PROJECT EXPERIENCE	ODIN Arctic Surveillance Mission <i>Final Project - Space Systems Engineering</i> <ul style="list-style-type: none">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 <i>Final Project - System Dynamics</i> <ul style="list-style-type: none">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.	Technical University of Denmark May 2025 Cornell University December 2024
RESEARCH EXPERIENCE	Avedisian Fuel Combustion Lab <i>Research Assistant - Mechanical and Aerospace Engineering</i> <ul style="list-style-type: none">Reinforced experimental apparatus for repeated high-impact testing, enabling microgravity combustion studies.Investigated soot formation in droplet combustion; collected data for peer-reviewed publication.	Cornell University January - May 2024
MEMBERSHIPS	ASME Member Heritage Chair, Pi Kappa Phi Fraternity Cornell Boxing Club	