Anson C Mole

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Links: My Portfolio | My LinkedIn

Education

Northeastern University, Boston, MA — Expected April, 2026
Candidate for Bachelor of Mechanical Engineering
Classes: Materials Processing and Process Selection, Computational Fluid Dynamics, Statics, Computer-Aided Design & Manufacturing, Systems Analysis and Controls, Dynamics, Heat Transfer, Fluid Mechanics, Electrical Engineering, Mechanics of Materials

Relevant Skills

3D Design: SolidWorks (CSWA Certified) - Sheet metal design, weldments, surfacing
Design to Manufacturing: Engineering Drawings | GD&T | Design for Manufacturing
Machining & Manufacturing: Thermoforming | CNC Machining | 3D Printing | Laser Cutter
Coding: Experience with Java, C++, Python, and MATLAB
Professional/Leadership: Leading large projects, running meetings, documentation

Projects

FR3D - Summer, Fall 2025 - Mechanical Engineering Capstone Project
- Awarded the Gorlov Prize for Innovation (Overall winner of Northeastern ME Capstone)
- 3 DOF robotic wrist capable of human-level dynamic manipulation of a fencing blade
- Controlled via teleoperation, motion capture trajectories, recorded movement playback

Skills Tested: Research driven design, 3D drafting, mechanism development, PID tuning, power transmission, motor selection, budget adherance

BAO3000 - Spring 2025 - Aerospace Composites Manufacturing Oven
- Designed and built a 3000 cubic foot oven for final stage curing of aerospace composites
- Coordinated multi team effort, balancing objectives of various stakeholders
- Certified under AMS2750 as a Class 2 Type D Furnace (±10°F Temperature Uniformity)
- Saved hundreds of thousands of dollars over commercial alternatives

Skills Tested: Project leadership, adherence to engineering standards, electrical systems, thermal analysis, control software tuning, cost-conscious project execution

Work Experience

BETA Technologies — Burlington, VT
Mechanical Engineering Co-op - Advanced Concepts — January 2025 - June 2025
- Led a project to design, build, and certify a 3,000 cubic foot composites oven for the final cure of production intent bonded aircraft wings - **BAO3000 Project**
- Authored work instructions for oven operation during the curing of composite wings
- Hand-laid pre-preg carbon fiber to build structural aircraft components used in flight
- Assisted with design rework of test equipment for manufacturability

Mechanical Engineering Co-op - Lift Kit — January 2024 - June 2024
- Developed a modular packaging system for shipping out fragile internal propeller components and shipping back the fully constructed propeller in the same box
- Designed thermoformed clamshell packaging system for shipping propeller components
- Designed and built a dynamic fatigue rig to test thermal changes in HCL bearings
- Designed and built a paint-balancing structure for propeller manufacturing
- Learned GD&T and how to communicate objectives through engineering drawings