

Zachary A. Sherman

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EDUCATION

- Olin College of Engineering, Needham, MA December 2023
 - Bachelor of Science in Mechanical Engineering
 - Recipient of four-year, 50% Olin Merit Tuition Scholarship

SKILLS

- Manual and CNC mill, lathe, waterjet, laser cutter, 3D printer, power and hand tools, metrology
- Onshape, SolidWorks, Python, MATLAB, Adobe Creative Cloud Suite, Figma, KiCad, HTML/CSS, Atlassian
- Proficient in French and Hebrew

EXPERIENCE

Formlabs, Somerville, MA - Mechanical Engineering Intern Summers 2022 and 2023

The professional 3D printer of choice for engineers, designers, and manufacturers around the globe.

- Designed, built, and validated pneumatic jig for mid-scale component assembly and manual gantry jig for large-scale component calibration
- Evaluated variables in prospective 3D printer parts and wrote reports summarizing results at high level
- Optimized in-house small-scale manufacturing processes for proprietary next-gen parts
- Assembled prototypes of next-gen parts and verified quality and accuracy using a Keyence Profilometer

Onshape, a PTC Business, Boston, MA

Product design platform combining 3D CAD, PDM, and collaboration in the cloud.

User Experience (UX) Intern

Summer 2021

- Designed fully-featured prototypes in Figma for high-impact Onshape features including Markup, Classes & Assignments, and Tangent Edges
- Created library of vector “components” for UX team, enabling faster user interface prototyping
- Wrote specifications for new features and worked with developers to implement them

Quality Assurance Intern

September 2020-January 2021

- Tested new features for quality before public release
- Discovered and reported over 600 bugs in production and beta software using Atlassian Jira
- Assisted in translating Onshape into French

PROJECTS

Information about additional projects available in portfolio at www.zacharysherman.com/portfolio.

Action Camera Active Cooler With External Power Supply

Summer 2023-Present

- Creating a 3D-printable enclosure to actively cool an action camera and double battery life
- Designing and assembling a printed circuit board in KiCad to control fan operation and battery charging

Brandeis Rosbash Lab FlyBox - Senior Capstone Project in Engineering (SCOPE)

Fall 2022-Spring 2023

*Light-tight box equipped with entrainment lights and video recording to detect *Drosophila* (fruit fly) activity/sleep patterns.*

Background information: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7081347/>

- Worked in group of five students to redesign FlyBox to be more robust and easier to assemble and use
- Migrated all FlyBox CAD to Onshape and made improvements based on researcher feedback
- Selected COTS parts based on reliability, availability, and ease of use and wrote bill of materials for all parts
- Designed and implemented React web-based UI to be used by researchers for programming FlyBox tests

CERTIFICATES & VOLUNTEERING

- Certified Onshape Professional and Certified Onshape Associate
- FAA Certificated Private Aircraft Pilot, Airplane Single Engine Land (PP-ASEL)
- Amateur Radio Technician Class license, callsign KC1NXX
 - Volunteer regularly for public service events including Boston Marathon and Head of the Charles Regatta
 - Collegiate outreach ambassador for Sci-Tech Amateur Radio Society (STARS) at New England Sci-Tech
 - Student advisor and former leader of Olin Collegiate Amateur Radio Club (OCARC)
- Sound engineer and theater technician for more than 30 youth, educational, and community theater productions