Somerville, MA 02143

Harry Steinberg

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Mechanical Engineer with 4+ years of experience designing complex machines and manufacturing workflows. Expertise in implementing novel production processes through iterative testing and optimization.

Experience

Parallel Fluidics DEC 2023 - Present | Boston, MA
Mechanical Engineer

- Design and build precision manufacturing equipment with ±10µm tolerances
- Develop assembly workflows and fixtures to streamline high-precision device production
- Perform tolerance stack-up analyses to ensure alignment and sealing of vacuum system
- Use GD&T standards to manufacture parts both in-house and with external vendors
- Operate machine shop equipment to quickly prototype and de-risk design iterations
- Conduct root cause analyses on manufacturing defects and implement corrective actions
- Automate production and inspection tasks to improve throughput and consistency

Vision Cycle JAN 2023 - NOV 2023 | Boston, MA
Mechanical Engineer

- Designed and conducted test procedures for novel digital separation technology
- Utilized fabrication techniques (machining, 3D printing, etc.) to build prototypes
- Collected and analyzed data to inform key software and hardware design decisions

Community Charter School of Cambridge SEP 2021 - JUNE 2022 | Cambridge, MA
Mathematics Teacher

- Planned rigorous and engaging curriculum to meet state standards and student interest
- Analyzed real-time data during lessons to efficiently address student learning gaps
- Collaborated with Math department faculty to refine and practice teaching methodologies

NOLOP Makerspace SEP 2019 - MAY 2021 | Medford, MA
Fabrication Supervisor

- Executed fabrication requests using a variety of machines (3D printing, laser cutting, etc.)
- Identified and helped fix design flaws and fabrication inefficiencies in shop submissions
- Designed and led a workshop on a new design technique every semester

Education

Tufts University *Medford, MA*

Bachelor of Science in Mechanical Engineering — May 2021
Second Major in Anthropology — May 2021

Skills

CAD: SOLIDWORKS, Fusion360, OnShape, AutoCAD, KiCad

Thermal and Fluid Simulation: ANSYS, SolidWorks, PowerVIZ, OpenFOAM

Automation: Beckhoff PLCs, Raspberry PI, Arduino

Software: Python, C++, PyTorch, Git

Fabrication: 3 axis CNC machines, 3D Printing (Form 3 and Prusa), Soldering, Hand tools

Licenses and Certifications

FAA Licensed Private Pilot

- Licensed to fly Single Engine Land Airplanes under 14 CFR Part 61

FAA Licensed Drone Pilot

- Licensed to fly Small Unmanned Aircraft Systems under 14 CFR Part 107

Projects*

Small Satellite Attitude Control System

- Fabricated a functional prototype using fluid mechanics and IMU to sense rotation

FlowShow Wind Tunnel

- Designed, simulated, fabricated, and tested small-scale wind tunnel with streamline visualization and real-time velocity using SolidWorks and integrated airspeed sensors

*more detailed project pictures & descriptions can be found on harrysteinberg.com