MIA KOBS

https://www.linkedin.com/in/mia-kobs-010767147/

EDUCATION

Dartmouth College—Thayer School of Engineering, Hanover, NH **March 2020**
Bachelor of Engineering, Mechanical Engineering

WORK EXPERIENCE

Stage 2 Contract Engineering, Farmington Hills, MI **June 2023-Current**
Mechanical Engineer

- Collaborated on the design of novel energy storage systems. Generated Solidworks models and drawings for first generation prototypes, sourced necessary components, and coordinated assembly of prototypes.
- Drove development of welded sheet metal assemblies. Produced fabrication drawings for welded sheet metal assemblies and coordinated with vendors to supply parts.
- Led design for a custom sheet metal tube-axial fan through multiple design cycles. Optimized design to reduce operation noise.
- Coordinated with international suppliers to assess cost feasibility for high-volume manufacturing. Produced design packages and advised on appropriate manufacturing processes.
- Engineered cleanroom-compatible mechanical assemblies to support controlled-environment manufacturing processes.
- Optimized design of injection-molded components for pressurized applications, using CMM measurements to evaluate consistency of key design features across different materials.
- Conducted analyses on under-performing components with a CMM and Solidworks Simulation to determine modes of failure.
- Designed custom inspection gauges and fixtures for quality control of critical component features.
- Developed Python code to streamline documentation processes for tracking inspection requirements.
- Authored and updated work instructions documenting manufacturing and inspection processes.

Zakuro, Ann Arbor, MI **June 2021-June 2023**
Mechanical Engineer

- Oversaw mechanical and electrical design across two generations of equipment intended to scale up manufacturing processes for solid state battery technology.
- Produced timelines for the scale-up equipment, and led team in determining specifications and requirements for design.
- Created and maintained the equipment assembly in Solidworks. Generated drawings, BOMs, and build documents.
- Designed electrical systems from end-to-end, including circuit design, component selection, and electrical assembly.
- Identified and selected suppliers for custom parts. Managed vendor relationships and procurement timelines.
- Planned and executed engineering validation and performance testing for manufacturing scale-up equipment.
- Drew layout plans for a new lab space to house scale-up equipment. Ensured the space met all requirements for the equipment.
- Led design for systems to streamline lab research workflows, working with researchers to define functional requirements.
- Implemented an automated lab data acquisition system using Arduino, Python, and a custom-designed PCB.

AutoLung, Remote **April 2020-April 2021**
Mechanical Engineer—Project Lead

- As project lead, delegated tasks to the team, led meetings, and created schedules.
- Designed, modeled (Solidworks), and fabricated all mechanical components of AutoLung's Respiratory Assistance Device.
- Authored detailed manufacturing and assembly instructions to enable consistent device builds.
- Wrote Arduino code for sensor integration and system control. Completed electrical wiring for multiple device instances.
- Defined testing requirements and methodologies, executed validation tests, and ran statistical analysis on performance data.
- Built the AutoLung website and wrote applications for grants from social impact foundations and organizations.

Commonwealth Fusion Systems, Cambridge, MA **September 2019-December 2019**
Mechanical Engineering Intern

- Updated and tested designs for test fixtures. Wrote Matlab code to model the winding path for a fusion power research magnet.

Thayer School of Engineering, Hanover, NH **March 2019-August 2019**
Research Assistant

Machine Shop at Thayer School of Engineering, Hanover, NH **September 2016-June 2017**
Shop Assistant

SKILLS & INTERESTS

Computer: Solidworks, Rhino, Matlab, Python, C, R, Visio, CorelDraw, KiCAD, Aspire, RSLogix 5000
Technical: Arduino, PLC, mill, CNC router, laser-cutter, 3D-printer, waterjet, soldering, CMM, rapid prototyping, DFM
Certifications: Certified Solidworks Associate (CSWA)
Languages: Native English, Proficient speaking in Mandarin, adequate writing and speaking abilities in Spanish