Anya L. Keller

Email: kelleranyal@gmail.com Tel: (646) 206-8789 Portfolio: anyakeller.github.io/portfolio

EDUCATION

Boston University *BS, Mechanical Engineering, Manufacturing Concentration* May 2024

Stuyvesant High School, New York, NY Jun 2017

EXPERIENCE

BU Engineering Product Innovation Center Boston, MA

Machine Shop Laboratory Assistant Sep 2021 - May 2024

- Machined parts from drawings or CAD with up to 0.0005" (12.7 µm) precision on CNC and manual machines.
- Sketched part drawings for students and advised on DFM (design for manufacturing) rules.
- Developed an instructional manual for the use of the Boy 22A Plastic Injection molding machine.

va-Q-tec AG Würzburg, Germany

Product Development Intern Jun 2023 - Aug 2023

- Prototyped a vacuum insulation panel thickness measurement device.
- Analyzed impact of thickness on accuracy on thermal conductivity calculation error in excel.
- Presented on theory and design of guarded hot plate apparatus for thermal conductivity measurement.

Kite and Rocket Research New York, NY

Junior Engineer Nov 2018 - Aug 2021

- Transformed sketched ideas into CAD and procured COTs parts and raw materials from BOM.
- Delivered and tested mechanical prototypes to meet requirements and client needs.

PROJECTS

Vacuum Insulation Panel Thickness Measurement Device, *va-Q-tec AG* Jun 2023 - Aug 2023

- Measured panel thickness and created a statistical process control chart to analyze variation across panels.
- Developed a measurement procedure and calculation protocol in compliance with DIN standards.
- Planned work schedule with a Gantt chart and compared design options using morphological analysis.

Vacuum Split, *Kite and Rocket Research* Nov 2018 - Aug 2021

- Designed and prototyped vacuum-tight chamber with modular sections for accurate splint positioning.
- Designed screw-mechanism and inflatable balloon splint designs and tested for comparison.

8-Foot "Stomp Rocket", *Kite and Rocket Research* Jan 2019 - Nov 2019

- Created pressurizing mechanism, launching mechanism, and foam rocket in Solidworks CAD.
- Manufactured and assembled parts from McMaster and other suppliers.
- Tested, showcased, and ran demonstrations at the Chicago Toy and Game Fair.

Additional Projects: Rotary Vane Pump Redesign, CV Ping-Pong Ball-Tracking Robot

SKILLS

CAD
SolidWorks, Autocad, Creo, Onshape

Analysis & Design
FEM: SolidWorks & Onshape
Part Drawings w/GD&T
Hand-Drawn Mechanical Drafting

Fabrication
CAM/CNC:
GibbsCAM, Fusion 360, SolidCam
Manual MillingTurning (lathe)
Waterjet and Laser Cutting

Additive
SLA: Formlabs
FDM: Stratasys, Bamboo, MakerGear

Manufacturing
PLC Programming
Universal Robotics

ACTIVITIES AND INTERESTS

Human Languages
Studying: Italian and German
Past Studied: Mandarin, French

Computer Science
MATLAB, C, Python, Java, JavaScript
Full Stack Website Development in React

Robotics & Electronics
Arduino & ESP-32
Computer vision: OpenMV, PixyCam

REFERENCES available upon request

Stephen Chomyszak, Director, *EPIC* and Professor of the Practice at *Boston University* - schomysz@bu.edu
Robert Victor, Founder and CEO of *Kite and Rocket Research* - robert@kiteandrocket.com