4 (646) 206-8789 **■ BU** alkeller@bu.edu



SKILLS

Machining and Fabrication

4 Years in High School and 2 in College

- CAD: SolidWorks, Autocad, Onshape
- CNC & CAM: GibbsCAM, Fusion 360 and SolidCam
- **Subtractive:** Manual mill and lathe work, water jet, laser cutting
- Additive: Plastic injection molding and SLA & FDM 3D printing (Formlabs, Stratasys, and more)

Computer Science

3 Years in High School and 1 in College

- Arduino circuitry and programming
- Database management with MySQL and MongoDB
- Website development:
 - HTML + CSS + Javascript + JQuery
 - React.js, Node.js, Express.js, NPM
- Additional languages: MATLAB, Python, and Java

- WordPress PHP
- Python Flask with Jinja Templates

CURRENT EMPLOYMENT AND EDUCATION

Boston University School of Engineering || Mechanical Engineering

September 2021 - Present

Machine Shop Laboratory Assistant

September 2021 - Present

In charge of injection molding machine maintenance, documentation, and demonstrations. Manufacturing precision parts using CNC and manual mills, lathes, waterjet, 3D printers, and various shop tools.

EMPLOYMENT HISTORY

• Junior Engineer | Kite and Rocket Research

November 2018 - August 2021

Designed and constructed an 8-foot "stomp rocket" for the Chicago Toy and Game Fair 2019.

Responsibilities included: prototyping, CAD, procurement, manufacturing, and assembly.

- Full-Stack Web Dev Bootcamp Teaching Assistant || Columbia University October 2020 - April 2021 Lead breakout rooms of students in groups of 15 through activities and held office hours. The bootcamp covers the fundamentals of web dev including deployment, testing, git workflow, and database management.
- **Engineering Intern** || *Kite and Rocket Research*

Summer 2016 and 2018

Project work included: programming and servicing an arduino-powered window plotting machine, automation of the company lathe feed, and redesigning the shop's compressed air system.

Primary Machinist | StuyPulse Robotics Team 694, New York, NY

September 13 - June 2017

Manufactured key robot parts from drawings and CAD files and directed and trained students on the usage and upkeep of mills and lathes. Led prototyping projects and worked on robot design and construction.

EDUCATION

Full-Stack Web Dev Bootcamp at Columbia University

July 2019 - January 2020

Stuyvesant High School, New York, NY

Class of 2017

REFERENCES

Ronald Kunicki, Mentor StuyPulse Robotics - ronkunicki@hotmail.com Robert Victor, Founder and CEO of Kite and Rocket Research - robert@kiteandrocket.com