



# Reuben Lewis

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## SKILLS

### Computer Aided Design

Onshape SOLIDWORKS

Fusion 360 ANSYS Mechanical

### Rapid Prototyping

SLA Printing FDM Printing

Sheet Metal CO2 Laser Cutter

Vacuformer ShopBot CNC

### Metal Fabrication

3-Axis CNC Milling Bridgeport

Hurco WinMax

Tormach PathPilot

TIG Welding MIG Welding

CNC Plasma Cutting

OMAX Waterjet

Ironworker Machine

### Computer Programming

Python R Java MATLAB

## AWARDS

**Best Use of External Data** (April 2023)  
Olin ASA Data Fest

**Certificate of Special Congressional Recognition** (July 2021)  
The Honorable Barbara Lee  
In recognition of contributions to team science.

**Neodymium Industrial Design Award** (May 2021)  
FIRST Robotics  
Awarded to robotics team for robot design.

**Editors Choice Award** (August 2018)  
Bay Area Maker Faire  
Awarded for virtual reality interactive simulator software project.

**XR Edu Challenge Second Place** (June 2018)  
XR Edu  
XR Edu hackathon for virtual reality development in education.

**CERTIFICATIONS**

**OSHA Forklift Certification** (June 2022)  
American Safety Council

## WORK EXPERIENCE

### Olin College Machine Shop

(January 2023 - Present)

Student Instructor

- Supported students in coursework, research, and personal projects
- Fostered inclusivity, accessibility, and creativity for students
- Trained students on CNC milling operation, powder coating, and sheet metal work

### Olin College Machine Shop

(May 2023 - July 2023)

Shop Fellow

- Developed and executed shop improvement projects
- Redefined shop mission and future goals
- Completed work orders for project teams and researchers

### TWIST Lab

(August 2022 - Present)

Researcher

- Researched bio-mimetic soft robotic systems
- Designed pneumatic artificial air muscles and exoskeleton structures
- Manufactured components using SLA printing and lathe operation

### Berkeley Unified School District

(September 2018 - July 2022)

Stage Manager

- Oversaw theatre operations during performances with more than 2,400 attendees
- Installed more than 600,000 dollars worth of audio and lighting equipment
- Managed a 7 person team during live shows
- Designed and manufactured full scale set pieces
- Operated advanced projection mapping equipment
- Worked more than 1,000 show and prep hours

### Berkelium Robotics

(August 2018 - July 2022)

Design Lead

- Leader of 100+ person robotics team
- Designed award winning robot using Onshape
- Contributed to website design and code base
- Manufactured robot parts using CNC milling and 3D printing
- Wrote web articles to increase community engagement

### City of Berkeley Robotics Summer Camp

(June 2022 - July 2022)

Teacher

- Developed lesson planning and curriculum design
- Wrote curriculum documentation
- Oversaw 30+ students
- Taught robot design programming, and CNC milling

### National Energy Research Scientific Computing Center

(June 2021 - July 2021)

Intern

- Collected millions of data points using python
- Analyzed data using pandas and matplotlib
- Ran analysis programs using high performance computing
- Published research results internally

### Stay True Cycles

(June 2021 - July 2021)

Intern

- Restocked parts and tools
- Worked on bikes using a wide array of tools and techniques
- Tested bikes for quality assurance

## EDUCATION

### Franklin W. Olin College of Engineering

(August 2022 - Present)

Engineering Concentrating in Robotics

Design Nature Modeling and Simulation of the Physical World

Quantitative Engineering Analysis Infrastructure Studies

Data Science Quantitative Engineering Analysis 2

Products and Markets Introduction to Mechanical Prototyping

Introduction to Sensors, Instrumentation and Measurement

### Wellesley College

(January 2023 - Present)

The Climate Crisis and the Liberal Arts

### Berkeley City College

(September 2021 - June 2022)

Calculus 3A

### Berkeley High School

(August 2018 - June 2022)