# **Maddie Burroughs**

she/her

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www.maddiercb.com

**Education** Carnegie Mellon University Pittsburgh, PA

Bachelor of Science in Electrical and Computer Engineering

Additional Major in Design of Interactive Media

Relevant Experience Origami Risk

Chicago, IL

May 2025

Associate Software Engineer

Aug 2025

Software Engineering Intern

May - Aug 2024

 Designed and built a microservice platform for code-less payment providers configuration, generalizing API steps and data structures into a block-based workflow interface

## Scotch'n'Soda Theatre Company

Pittsburgh, PA

Production Manager, Technical Director, Designer

Aug 2021 - Present

- Facilitate 7 rounds of deliverable meetings between the creative team and scenic, lighting, sound, costuming, hair & makeup, and publicity teams
- Coordinate overall production budget of up to \$25,000
- Maintain communication between technical, creative, and production teams, as well as university personnel, throughout each multiple-month show process
- Host production events for 125+ people, including design previews, load-in, strike, and inspections
- Design and oversee the implementation of original scenic sets for musicals and plays

# Carnegie Mellon University

Pittsburgh, PA

Content Lead, Events Lead - Fundamentals of Programming (15-112/110)

Aug 2022 - Present

- Develop and revise weekly instructional content, including instructional session plans, practice assessments, and rubrics
- Redesigned the course's month-long term project
- Organize and host course events for over 250 students, including a 24-hour hackathon
- Lead weekly recitations, office hours, as well as host periodic 1:1 tutoring and large review sessions

Teaching Assistant - Inflatables (53-330)

Jan 2025 - Present

- Assist students from various disciplines through multiple sewing projects, culminating in teams creating room-sized inflatables
- Facilitate first time collaboration between course staff and Dr. Jean Oh's BIG Robotics Lab
- Assist in the planning and execution of an end of semester showcase

#### **Lunar Gala Fashion Show**

Pittsburgh, PA

Head of Stage Design

Aug 2023 - Apr 2024

- Designed, rendered, and constructed the runway for Pennsylvania's largest annual fashion show
- Presented design concepts and iterations to production department heads
- Coordinated equipment rentals, scheduling, and accessibility with vendors and venue management
- Hired and managed a team to develop projections and large staging elements for an immersive audience experience

## Shirley Ryan AbilityLab - Center for Bionic Medicine

Chicago, IL

Mechatronics Engineering Intern

May 2023 - Aug 2023

- Developed a Python GUI for real-time prosthetic sensor visualization during physical therapy
- Built and tested electrical components for ankle and knee prosthetics
- Updated and maintained upper and lower limb prosthetic development kit

## Skills

**Technical:** Python, C++, C, Java, SystemVerilog, MATLAB, OpenCV, AutoCAD, SolidWorks, Database Management, Arduino, Raspberry Pi, Circuit & PCB Design, Soldering, HTML, CSS, React, Django, Git, Al

**Design and Fabrication:** Graphic Design (Photoshop, Illustrator, Figma), Product Design, 3D Printing (FDM/SLA), Laser Cutting, Woodworking, Sewing, Computational Knitting, Embroidery

**Collaboration and Leadership:** Project Management, Teaching, Organization, Communication, Public Speaking, Design, Content Writing, Technical Writing, Editing, Code Review

# **Projects**

For a gallery of my recent projects, please visit <u>maddiercb.com</u>. My site is currently being updated, with more content coming soon.