

Maddie Burroughs

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Education	Carnegie Mellon University Pittsburgh, PA Bachelor of Science in Electrical and Computer Engineering Additional Major in Design of Interactive Media	May 2025
Relevant Experience	Origami Risk Associate Software Engineer Software Engineering Intern <ul style="list-style-type: none">- Designed and built a microservice to allow for code-less configuration of payment providers, generalizing API steps and data structures to create a block-based workflow interface Scotch'n'Soda Theatre Company Production Manager, Technical Director, Designer <ul style="list-style-type: none">- Schedule and facilitate 7 rounds of deliverable meetings between designers, implementers, and technical leads for scenic, lighting, sound, costuming, hair & makeup, and publicity.- Coordinate overall production budget of up to \$25,000.- Maintain constructive lines of communication between technical, creative, and production staff, as well as with the university personnel through up to 5 month long show processes- Host full production events of up to 125 people including a design preview, load-in, strike, and multiple safety inspections Carnegie Mellon University Content Lead, Events Lead - Fundamentals of Programming (15-112) <ul style="list-style-type: none">- Coordinate and review weekly content breakdowns, as well as develop practice assessments and supplementary instruction content- Lead the redevelopment of the course's month-long term project- Organize and host course events for over 200 students including a 24-hour hackathon Teaching Assistant - Inflatables (99-361) <ul style="list-style-type: none">- Assist students from various disciplines through multiple sewing projects, culminating in teams creating room-sized inflatables- Facilitated first time collaboration between course staff and Dr. Jean Oh's BIG Robotics Lab- Assisted in the planning and execution of an end of semester showcase Teaching Assistant - Principles of Computing (15-110) <ul style="list-style-type: none">- Lead weekly recitation and office hours- Host exam review and solution sessions- Grade assessments, including written and programming assignments, quizzes, and exams Lunar Gala Fashion Show Head of Stage Design <ul style="list-style-type: none">- Design, rendered, and constructed the runway for Pennsylvania's largest annual fashion show- Present design concepts and iterations to production department heads- Coordinate with vendors and venue management to communicate needs, organize equipment rentals, and ensure accessibility and safety requirements are met- Interview, hire, and manage a team of implementers to develop background projections and environmental decorations to support an immersive, end-to-end audience experience Shirley Ryan AbilityLab - Center for Bionic Medicine Mechatronics Engineering Intern <ul style="list-style-type: none">- Developed a prosthetic sensor signal visualization GUI in Python for real-time data analysis during physical therapy sessions- Built and tested electrical components for ankle and knee prosthetics- Updated and maintained upper limb prosthetic development kit	Chicago, IL Aug 2025 May 2024 - Aug 2024 Pittsburgh, PA Aug 2021 - Present Pittsburgh, PA Aug 2022 - May 2024 Jan 2025 - Present Aug 2024 - Present Pittsburgh, PA Aug 2023 - Apr 2024 Chicago, IL May 2023 - Aug 2023
Skills	Soft Skills: Project management, teaching, organization, communication, public speaking, design Professional Skills: Python, C++, C, Java, SystemVerilog, MATLAB, AutoCAD, OpenCV, Arduino, Raspberry Pi, Database Management, SolidWorks, Figma, Photoshop, Illustrator, Graphic design, Circuit and PCB design, Soldering, FDM/SLA 3D printing, Sewing, Woodworking, Laser cutting	
Projects	To see the projects that I've been working on, feel free to check out my personal website: maddiercb.com!	