# Matthew Brucker

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## Education

**Olin College of Engineering** | Needham, MA | Graduation Date: May 2020 | GPA: 4.0
Bachelor of Science in Engineering with a concentration in Computing
**Relevant Coursework:** Technology, Accessibility, and Design; Affordable Design and Entrepreneurship; Understanding and Improving Schools; Teaching and Learning; User-Oriented Collaborative Design
**Skills:** Python (OpenCV, Flask), JavaScript (React/Redux, NodeJS), TypeScript, Go, Java, C++, PostgreSQL, Adobe InDesign/Illustrator, Arduino, Raspberry Pi

## Research

**Olin College** | Engineering Education Research | Spring 2017–Present
Analyzed narratives of college alumni using qualitative grounded theory methods to understand how individuals navigate gender in engineering education (advisor: Yevgeniya Zastavker)
**Publication:** Presented at 2018 IEEE Frontiers in Education conference (primary author).
**Olin College** | Narrative Identity Research | Summer 2017
Coded narrative dataset of high-stress caregivers, analyzing for themes drawn from narrative identity (personality psychology) research as part of a two-person research group (advisor: Jonathan Adler)
**Publication:** Published in Brain, Behavior, and Immunity

## Work Experience

**Olin College** | Teaching Assistant | Fall 2017–Present
Assisted with course planning and grading and provided student help and feedback for classes
*Modeling and Simulation of the Physical World, Software Design,* and *Discrete Mathematics*
**SHIFT Technologies** | San Francisco, CA | Software Engineering Intern | Summer 2019
Built frontend components in React/TypeScript to calculate and display customer financing information, and used Go/React/TypeScript to streamline customer documentation upload process
**Workiva** | Ames, IA | Information Security Intern | Summer 2018
Developed and deployed Python-based module for intake and formatting of logs from production environments, and built unit-testing functionality of log processing AWS Lambda function
**Dwolla** | Des Moines, IA | Information Security Intern | Summer 2016
Tested and deployed open-source security tools for security testing/file integrity monitoring on Linux servers; wrote Python scripts to automate security testing/log processing internally and in AWS EC2 server; and created Python program to analyze network traffic security rules in AWS

## Projects

**East Boston Air Quality** | Affordable Design and Entrepreneurship | Fall 2019 - Present
Led the planning and co-design of an air quality public awareness campaign with East Boston residents and community organizations, as part of seven-person team
**Accessible Robotics Workshop** | Technology, Accessibility, and Design | Spring 2019
Co-designed and developed a fully accessible robotics workshop for Boston middle-school students who are blind and visually impaired, as part of three-person team. Also conducted a literature review of Universal Design for Learning.
**InfinityBoard** | Hacking the Library | Spring 2018
Worked on three-person team to develop InfinityBoard, a real-time, collaborative virtual whiteboad using JavaScript (React) to build application frontend, and created state management and real-time propagation using Redus
**Inact** | User-Oriented Collaborative Design | Spring 2018
Interviewed volunteers and employees at Boston-area community organizations serving immigrants and refugees. Designed and prototyped an intervention to assist data collection and community storytelling as part of four-person team.