

# Emily Margis

## EDUCATION

**UC Berkeley**, Berkeley CA — B.A. *Computer Science* (GPA: 3.60)

August 2017 - May 2021

## EXPERIENCE/ACTIVITIES

**Prototype Industries Inc., Mission Viejo** — *User Experience Consultant Intern*

June 2019 - August 2019

- Designed and restructured main customer interface for placing order requests
- Worked closely with writers, managers, and developers to identify usability issues with the company's patented technical publishing software, Skywriter, and proposed solutions to make it more user friendly and intuitive for internal and external users.
- Through a series of user interviews as well as usability analysis, I defined user pain points and goals, created workflow diagrams and wireframes, then iterated and improved these designs with feedback from , creating a final prototype to hand off to developers.

**Society of Women Engineers, Berkeley** — Professional Development Committee *Corporate Relations*

September 2018 - December 2018

- Reached out to Corporate representatives of companies such as Google, GM, and Spotify to organize events with SWE as part of our professional development series, aimed at giving female engineering students the professional career tools they need.
- Organized and executed SWE's annual overnight host program, giving Berkeley's female engineering admits information and support in how to succeed in a male-majority industry.

## PROJECTS

**UberEats Feature Prototype** — March 2019

Through a process of interviewing UberEats drivers, creating personas and conducting usability tests, I prototyped a new UberEats feature using Figma that allows drivers to restrict their work boundaries and utilize hotspot maps in order to increase efficiency and eliminate unnecessarily far drives.

**Map Application** — April 2018

Implemented the backend of a navigation program that converts routing and location data in XML into a pixel-by-pixel image. Created a user interface that supports scrolling, zooming, and route finding. Utilizing a graph data structure, I implemented the A\* shortest paths finder that relies upon heuristics to improve runtime for route finding.

**2D Tile Based Game** — February 2018

Developed a 2-player game utilizing keyboard inputs, by constructing a pseudorandom world generator as well as implementing game mechanics to allow players to navigate through rooms and tunnels, racing to collect items and blocking each other.

**Performance Programming** — April 2019

Sped up a provided convolutional neural network by 14 times by implementing performance optimization techniques such as vector-extension instructions (SIMD), and loop unrolling, as well as thread level parallelism using OpenMP.

## CONTACT INFO

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## SKILLS

### Programming

Java, Python, C, RISC-V, Jupyter, iPython, Numpy, Git, Logism, Latex

### Design/Research

Figma, Wireframes & mock ups, User Interviews, Usability Testing, User Flows, Personas, Storyboards, Competitive Analysis

## AWARDS

**TI Contest (Voice Controlled Robot Car)** - Designed a robot that responds to voice commands. I used a band-pass filter and mic board to record words that I later classified using PCA to control the car, which utilized closed loop feedback.

## RELEVANT COURSEWORK

### Algorithms

### Artificial Intelligence

### Principles and Techniques of Data Science

### Data Structures & Programming Methodology

### Discrete Mathematics & Probability Theory

### Computer Architecture and Machine Structures

### Designing Information Devices and Systems

### User Experience Design