

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

- Redesigned and structured 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

Principles and Techniques of Data Science

Data Structures & Programming Methodology

Discrete Mathematics & Probability Theory

Computer Architecture and Machine Structures

Artificial Intelligence

Designing Information Devices and Systems

User Experience Design