

MALLIKA CHENNUPATY

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EDUCATION

University of California, Berkeley

May 2022

Bachelor of Science, Electrical Engineering and Computer Science

Courses: Data Structures/Programming Methodology, Machine Structures Efficient Algorithms/Intractable Problems Designing Information Devices, The Structure and Interpretation of Computer Programs

SKILLS

Programming Languages: Python, Java, SQL, Scheme, React Native

Image Editing: Photoshop, Illustrator, imageJ, Zephyr (an imaging software)

Online Systems: Git, Jupyter Notebooks

PROJECTS

Quokka Brew Mobile Application: Order/Delivery/Locator for Coffee

- Prototyped a mobile application with a daily spin-the-wheel game, ordering features, map locator using Figma
- Implemented the ideated features using React Native, and a Shopify codebase with the Storefront API, and tested the application using Expo

AQUA: Underwater Pipe Checking Device

- Developed an aquatic device model using TinkerCAD and Photoshop, inspired by Echinodermata of starfish, used for checking underwater pipes in an efficient and environmentally safe manner
- Link to feature: <https://www.instagram.com/p/BxTmQaUBg2l/>

BearMaps: Replica of Google Maps

- Implemented the backend of a Google Maps-esque application of Berkeley with Java, the A* algorithm, k-d trees

Gitlet: Miniature Replica of the Git Version Control System

- Engineered a simpler version of Git using Java with features such as checkout and merge using object serialization and hash identifiers
 - Created a design document to map out thought process and specify the data structures to create an efficient plan.
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EXPERIENCE

Intel, Portland, OR – Incoming SWE Intern

June 15 2020 –Present

Citris POLY-Pedal Lab: Insect Limb Motion Research, Berkeley, CA

Undergraduate Research Assistant

June 2019 –Jan 2020

- Constructed virtual models of insect legs using Zephyr to 3D print models for analysis of limb motion
- Used imageJ to measure and identify correlations between insect leg attributes (like length and joint rotation angles)

Potrero Medical: Analysis of Biofluids, Berkeley, CA

Consultant

June 2019 – Jan 2020

- Performed spectroscopy and pH tests in the onsite lab to improve accuracy of a detection device
- Conducted a weekly literature review of 3-5 research papers to improve the accuracy of the company's main device

Welch Allyn, Beaverton, OR

Intern

June 2017 – Aug 2017

- Increased the range of pupil width that an optical device can measure by 15% using Python, Git and Jupyter Notebooks
 - Enabled its usage in orphanages and old age homes in Asia through the increase in range of the device
 - Tested the modified code using model eyes and device in the lab, and performed data analysis using calibration curves
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LEADERSHIP

DiversaTech Consulting

Project Manager and Previous Consultant

Jan 2019 - Present

- Developed a Figma prototype and implemented ordering and gamification features of mobile app for QuokkaBrew
- Provided suggestions for improving Jumpstart's event hosting using data from user interviews/competitor analysis

Data Structures and Programming Student Course Staff

Lab Assistant

Aug 2019 – Jan 2020

- Teaching 50 students computer science concepts, including sorts and graphs, and answering homework questions

FEMtech

Launch Tutoring Program Lead

Aug 2019 – Present

- Organizing safe and community-oriented tutoring sections for women in lower division computer science classes