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: Java, Python, SQL, Scheme, React Native
Image Editing: Photoshop, Illustrator, imageJ, Zephyr (an imaging software)
Online Systems: Git, Jupyter Notebooks, Figma

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.

EXPERIENCE

Intel Corporation: Client Computing Group, Portland, OR
Software Engineering Intern June 2020 - Present

- Developing Python scripts to automate simulation runs of internal modeling systems and increase user efficiency
- Enabling team of 20 individuals to gather simulation data, and conduct performance analysis at a faster rate

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)

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

LEADERSHIP

DiversaTech Consulting
Project Manager and Previous Consultant Jan 2019 - Present

- Conducted SWO analysis to provide recommendations to Jumpstart's (a recruiting platform) event hosting team
- Developed a Figma prototype and implemented ordering and gamification features of mobile application

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 community-oriented tutoring sections for women in lower division computer science classes
- Hosted the first female/nonbinary hackathon, FEMHacks, at Berkeley, with 60+ attendees and company sponsors