JEN HOANG

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EDUCATION

The University of California, Berkeley

B.A in Computer Science — Expected May 2022

Relevant Coursework — GPA: 3.49

Structure and Interpretation of Computer Programs, Data Structures, Designing Information Devices and Systems, Machine Structures, Discrete Math and Probability (In Progress), Computer Graphics and Imaging (In Progress)

PROFESSIONAL EXPERIENCE

Software Developer, Tech Consulting — September 2019 - present

Blueprint: Tech for Social Good

- Develop software pro-bono for nonprofit groups (see **1951 Coffee Mobile Application** under Projects)
- Conduct user interviews with recently resettled refugees, using feedback to iteratively improve user experience

Class Facilitator — August 2019 - present

UCBUGG (UC Berkeley Undergraduate Graphics Group)

- Teach students how to navigate the 3D animation pipeline by sculpting, shading/texturing, rigging, and animating 3D models
- Provide understanding of digital design, including use of design/color theory, and lighting in storytelling

3D Modeling and Animation Project Director/Manager — September 2018 - present

UCBUGG (UC Berkeley Undergraduate Graphics Group)

- Create 3D animated shorts through extensive use of design software (Autodesk Maya/Arnold, Adobe Creative Suite, Renderman)
- Construct semester-long work timelines, delegate tasks, coordinate meetings, and write stories

PROJECTS

Rasterizer | C++ — Feb 2020

- Created a vector graphics renderer, which rasterizes triangle vectors and applies multiple antialiasing methods
- Implemented texture mapping with support for 3D depth processing (level sampling with mipmaps)

1951 Coffee Mobile Application (MVP) | React Native, Typescript — December 2019

- Developed an iOS/Android application that aids refugees/asylees through job attainment and integration into the coffee industry
- Implemented features providing access to community messaging, job opportunities, upcoming events, and barista guides
- Constructed the initial UI components for three of five total screens using React Native
- Established data organization and information storage, such as User information and Message storage through Airtable
- Enabled offline access to information through usage of AsyncStorage for data storage over the device
- Transcribed the full MVP documentation for admin and user handoff

Explorable World | Java — May 2019

- Designed and created a game-driven 2D tile-based world, holding 2 billion pseudo-randomly generated rooms
- Allowed users to save their progress and load the world as it was in the saved state later
- Enabled user interactivity through keyboard presses and String inputs

Web Mapping Application | Java — April 2019

- Converted user inputs regarding desired area and location into a map raster with support for scroll, zoom, and route-finding
- Stitched together appropriate selections from 40,000 map images, according to user zoom and pan
- Employed the A* Search algorithm to provide street directions that take the shortest path to desired locations
- Implemented an Autocomplete system, where a partial query string returns a list of locations where the prefix is the partial query

Yelp Maps | Python — Sep 2018

- Used machine learning and the Yelp academic dataset to create a visualization of predicted restaurant ratings
- Implemented a supervised learning algorithm that analyses past user data to provide curated user recommendations

SKILLS

Programming Languages: Proficient: Python, Java, C | Experienced: C++, HTML, CSS, JavaScript, TypeScript
Libraries and Frameworks: Numpy, JUnit Testing, React Native | **Tools:** IntelliJ, Airtable, Git, Jupyter Notebook
Design Adobe Creative Cloud (Photoshop, Lightroom, Illustrator), Autodesk Maya/Arnold, Pixar Renderman, Substance Painter