

# Debbie Pao

Email: [depao168@gmail.com](mailto:depao168@gmail.com)

Personal Website: <http://debbiepao.me>

Phone: (415) 713-7936

Address: San Francisco, CA, 94121, US Citizen

## EDUCATION

University of California, Berkeley

Expected Graduation: May 2019

B.S. Bioengineering, Minor in Electrical Engineering and Computer Science

- Relevant Coursework: Operating Systems and Systems Programming, Computer Security, Efficient Algorithms and Intractable Problems, Data Structures and Programming Methodology, Great Ideas in Computer Architecture (Machine Structures), Structure and Interpretation of Computer Programs, Discrete Mathematics and Probability Theory, Designing Information Devices and Systems

## SKILLS

**Coding Languages:** Java, Python, Javascript, Swift, Ruby, HTML, CSS, MySQL, Mongoose, C#, Scheme

**Technical Skills:** Node.js, Express.js, Ruby on Rails, Spring, XML, Cucumber.io, JUnit, Google Firebase, React, React Native, jQuery, MongoDB, Webpack, Handlebars, Bootstrap, Git, Expo, Electron, XCode, Unity Game Engine, Maya, UNIX, LaTeX, Arduino

## WORK EXPERIENCE

Amazon.com – Amazon Web Services (AWS), Software Development Engineer Intern

5/2018-present

- Integrated into existing production-level codebase a secure cloud customer-facing feature for an internal and external Java tool
- Designed and implemented scalable and durable data models for AWS DynamoDB tables using OS and security principles to facilitate access and encrypt customer data
- Practiced test-driven development via Cucumber.io end-to-end feature tests and JUnit functionality tests, validating inputs based on security and metrics

IBM, Software Engineer Contractor

2/2017-12/2017

Built language-intelligent Chatbot application, in contributing to IBM's Smarter Villages project, that allows Indian villagers to gain awareness and have a secure environment to gain answers to questions about emotional and mental health.

- Designed efficient algorithm to match symptoms to lists of diseases to give a suggestion of possible illnesses the patient could have
- Used IBM's Watson Conversation for natural language processing and parsing in our server; will be launched in India.
- Worked in a team of 10 people and worked closely with IBM's Creative Content Director

TableTip Analytics, Lead Full Stack Software Engineer Intern

7/2017-8/2017

TableTip Analytics is a less than 5-employee startup that provides a platform to enhance restaurant waiters training by evaluating their strengths and weaknesses to maximize sales in restaurants.

- Architected an end-to-end mobile application for both iOS and Android that has been launched for use by many restaurant customers using React Native for optimized performance and used AsyncStorage to store persisting data.
- Created RESTful Web Server API and modular backend using Node.js, Express.js, and Google's Firebase to statefully design multi-step interactions for push notifications and wrote MySQL queries to pull live data from MySQL database.
- Worked closely with CTO and one other person and met every two days to give thought-out feedback about functionality and technical implementations; wrote detailed and complete documentation for backend services.

## PROJECTS – Find more projects on my personal website: <http://debbiepao.me>

Time Pal

Javascript: Node.js and Express.js, Mongoose for MongoDB Database

7/2017

Intelligent Slackbot that can schedule reminders and meetings in Google Calendar using natural language processing queries.

- Designed interactive process for statefully managing multi-step chat interactions using Slack's Real-time Messaging API and Google's API.AI that allows for a friendly bot interface to schedule conflicts, cancellations, and confirmations.
- Scheduled batch job using Heroku by designing a cron job and devised unified OAuth flow for Google Calendar.

NodePad

Javascript, Socket.io, Node.js, Express.js, React.js, HTML/CSS, MongoDB

7/2017

Built contentEditable rich-text editor single-page desktop app that allows for real-time editing and multi-user collaboration.

- Built using React codebase that allows for optimized real-time updates from MongoDB database.
- Modular designed the single-page app with client-side routing and Webpack and used Electron to create a desktop app.
- Built RESTful backend Web Server API that allowed for both server-side and client-side Websockets.

Berkeley Maps API

Java

10/2016

Built map of Berkeley API that displays traffic layers, has different transportation options, autocompletes when searching for location names, finds the shortest path from starting point to destination, and displays step by step directions to destination.

- Found shortest path from start to end using Dijkstra's shortest path algorithm
- Used Tries to implement auto-completion when searching through location names.

## RESEARCH

OpenArk Augmented Reality

Software Developer/Researcher

2/2017-6/2017

Research project to create first open-source augmented reality developmental toolkit that enables human computer interaction in 3D space on any augmented reality platform. Integrates depth sensors, RGB camera, and transparent display glasses to aid in computer vision.

## TEACHING

UC Berkeley (Department of EECS)

CS61A, CS61B Tutor/Lab Assistant

8/2016-6/2017