

# Debbie Pao

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## EDUCATION

University of California, Berkeley

Expected Graduation: May 2019

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

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

## INTERESTS

Full Stack Development, Software Engineering

## SKILLS

**Coding Languages:** Java, Python, JavaScript, HTML, CSS, MySQL, Mongoose, C#, Scheme

**Technical Skills:** Node.js, Express.js, Google Firebase, React, React Native, jQuery, MongoDB, Webpack, Handlebars, Bootstrap, Git, Expo, Electron, XCode, Unity Game Engine, Maya, UNIX, LaTeX, Arduino

## WORK EXPERIENCE

**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.

**DiversaTech Consulting (Client: IBM)**, Technology Consultant

2/2017-present

*Built language-intelligent Chatbot application and web and mobile applications, 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.*

- Used IBM's Watson and NLP technologies in the implementation; will be launched in India this year.
- Worked in a team of 10 people and worked closely with IBM's Creative Content Director

**Engineering Solutions Consulting (Client: Bechtel Corporation)**, Technology Consultant

2/2017-6/2017

*Built dashboard for Bechtel Corporation that allows them to manage their employees in a time-efficient and organized way.*

- Designed automated project management software, using machine-learning algorithms to conduct predictive analysis forecasting.

## 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.

**Scheme Interpreter API**

Python

4/2016

*Built an interpreter using the Python language for translating Scheme language code. Evaluates submitted Scheme expressions.*

## RESEARCH

**OpenArk Augmented Reality**

Software Developer/Researcher

2/2017-present

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

8/2016-6/2016