

Stephen Jayakar

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EDUCATION

UC BERKELEY

BS IN EECS

May 2020 | Berkeley, CA
College of Engineering

LONGVIEW HIGH SCHOOL

May 2016 | Longview, TX
Valedictorian in I.B. Programme

LINKS

LinkedIn:// [stephenjayakar](#)
GitHub:// [stephenjayakar](#)
Facebook:// [stephenjayakar](#)

COURSEWORK

** indicates in progress*

CS61A: SICP
CS61B: Data Structures
CS61C: Computer Architecture
CS70: Discrete Math & Prob. Theory
CS170: Algorithms
CS162: Operating Systems
CS168: Internet Architecture
CS184: Computer Graphics & Imaging
CS186: Database Systems
CS161*: Computer Security
CS164*: Languages and Compilers

SKILLS

PROGRAMMING

Experienced:

Python • JavaScript (ES6)

Familiar:

Java • PostgreSQL • Swift •
Objective-C • C++ • C • GLSL

FRAMEWORKS AND ENVIRONMENTS

React • Graphene + GraphQL • Flask
• SQLAlchemy • Xcode •
React-Native • iOS • Firebase •
OpenGL • Figma • \LaTeX • Spotify-API
• Bash • Windows • OSX

DESIGN PRINCIPLES

MVC • MVVM •
Container-Component • Ant Design •
React Bootstrap • Material Design •

EXPERIENCE

GEM | FULL STACK ENGINEERING CONTRACTOR

August 2018 | San Francisco, CA

- Rolled out new customer-facing features in the frontend using ES6 and ReactJS, with some supplemental libraries such as Apollo and React Bootstrap.
- Designed GraphQL endpoints using Graphene + Flask after implementing a new database model using PostgreSQL and SQLAlchemy.
- Made some minor modifications to the NodeJS server to update some of the product's Server Side Rendered (SSR) pages.
- Replicated some functionality into the company's Chrome extension which automates loading in possible candidates from LinkedIn.

DOCUSIGN | IOS SOFTWARE ENGINEERING INTERN

May 2018 - July 2018 | San Francisco, CA

- Updated the Objective-C codebase to support iOS 11 features like FaceID.
- Rolled out some specific UI and animation rewrites for iPhone X support.
- Utilized JIRA and Confluence during the Agile development process on the mobile team.
- Coordinated with the API team as well as Product to begin getting the app to conform with Apple Push Notification Service and show app notifications.

MOBILE DEVELOPERS OF BERKELEY | IOS CONTRACT ENGINEER & TECHNICAL CONSULTANT

Sept 2017 - Present | Berkeley, CA

- Contracted out with startups for app development in the Berkeley area.
- Consulted with MDB internal contracting teams to help structure React, React-Native, and Swift projects as well as optimize their minimal viable product (MVC) descriptions.
- Completed a series of mini-projects to demonstrate Swift proficiency which utilized techniques such as asynchronous database calls and live location monitoring.

PROJECTS

CALNES | PYTHON3 NES EMULATOR

Oct 2017 - Present

- Architected an open-source implementation of the original Nintendo Entertainment System.
- Created a working 6502 CPU that passes most test suites.
- Currently debugging memory layout mapping in regards to Direct Memory Access between the Picture Processing Unit (PPU) and the CPU.

THREE-PARTICLES | 2D PARTICLE SIMULATION

Feb 2019 - Present

- First created a 2D fluids simulation in C++ and OpenGL with my team for a CS184 final project, with OpenCV as well as mouse interaction.
- Recreated this project in three.js to learn the library.
- Implemented mouse interactivity as well as basic performance standards.
- Built the system on Node + Webpack to easily deploy onto my website.

LOL-TENSORFLOW | GAME PREDICTION MODEL

Mar 2018 - Present

- Designed and implemented a deep neural network using TensorFlow and data from the League of Legends RESTful API.
- Trained on team compositional data on past matches to determine which team would win with approximately 88% certainty.