Rajeev Mehrotra

San Francisco, CA
Rajeev.A.Mehrotra1@gmail.com
rajmehrotra.com
github.com/rajeevmehrotra

Summary

Software Engineer with 5 years experience designing and developing scalable applications tailored to end-users and their needs. Proficient in every stage of the development lifecycle, from initial design to product shipment. Comfortable with a spectrum of technologies. Driven to write clean, efficient code. Eager to learn and grow. Currently living in San Francisco, CA and working remotely for Sparo, a company based in St. Louis, MO.

Technical Skills

Languages

- Python 2, 3
- Javascript (ES6)
- HTML5
- CSS3
- SQL
- Java

Frameworks & Runtimes

- TensorFlow
- Conda
- React.js
- Redux.js
- Node.js
- Express.js

Tools

- Git & GitHub
- Chrome DevTools
- Bash
- Postman
- Babel

Services

- Amazon Web Services
- Google Cloud Platform
- Google Firebase
- Docker
- CircleCI
- Jira

Experience

2013 – Present **Sparo** St. Louis, MO
Software Engineer (remote)

- Built a Signal Processing Engine in Python that transforms audio data collected by Sparo's medical device product, Wing (a smartphone-connected spirometer, accompanying app, and cloud-based data management system providing lung metrics vital to patients with respiratory diseases such as Asthma and COPD).
- Interviewed and worked with patients to design a system built around them and their needs.
- Deployed and connected cloud components via Amazon's AWS to create an efficient, scalable backend for real-time processing of collected audio signals.
- Managed MySQL databases and interfaced the Wing system with the stored data for efficient queries and retrieval.
- Ensured that the Wing system's design, implementation, documentation, and practices would meet the requirements of the Food and Drug Administration (FDA). Wing obtained FDA approval in early 2016.
- Designed and developed a number of Node.js tools for the introspection and management of user data which streamlined parameter tuning for the Signal Processing Engine algorithms.
- Collected and cleaned data in order to train a convolutional neural network using TensorFlow and Google Cloud Platform's Machine Learning Engine to classify audio signals in real time for an internal research platform.
- Built, maintained, helped design the websites for both Sparo (sparohealth.com) and Wing (mywing.io).
- Collaborated to design and build Sparo's second product, Lift, an online education platform providing therapy and breathing classes for people with COPD (liftpulmonaryrehab.com).
- Rapidly prototyped Lift using Node.js with Google's Firebase as a backend.
- Created an automated CircleCI workflow triggered by git pushes to run builds, tests and deployment processes.
- Wrote RESTful API endpoints and interfaced with third-party APIs to provide additional features for users.
- Connected with users through automated Mandrill emails to keep them engaged with Lift.
- Worked with the team to grow Lift from 0 users at launch in early 2018 to more than 20,000 signed-up by early 2019.
- Began implementing core components of Lift in React.js and managed state via Redux.js.

Education

2009 – 2014 **Washington University in St. Louis** St. Louis, MO

Master of Science in Computer Science. Bachelor of Science in Psychology. Minor in History.

Other Activities, Experience and Interests

Cooking, soccer, traveling, hiking, camping. Building personal websites. Earned Eagle Scout award (2008).