Adithya **Paramasivam**

Software Engineering Intern

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Education

University of California, Berkeley

Present - May 2022

Bachelor of Arts, Computer Science and Economics · 4.0/4.0 — *Berkeley, CA*

- Course Work: Data Structures **(Java)**, Structure and Interpretation of Computer Programs **(Python, Lisp, SQL)**, Probability and Statistics **(R)**, Designing Information Devices and Systems **(Python, Jupyter)**, Discrete Math, Great Ideas in Computer Architecture **(C, Assembly)**
- Organizations: Free Ventures (**freeventures.org**), Cal Sailing Club (**cal-sailing.org**), Upsilon Pi Epsilon (**upe.berkeley.edu**)

Experience

Harmonize Health, Inc.

May - August 2020

Software Engineer Intern — *Berkeley, CA*

- Independently **rebuilt CI/CD infrastructure**, increasing coverage while **cutting code length by 50% and testing time by 70%** and migrating suite from JavaScript to TypeScript. Test suite constructed with **Typescript, PuppeteerJS, cucumber-tsflow**.
- Worked across the stack (**ReactJS, NestJS**) as Harmonize (backed by Trinity Ventures) scaled **3x**, adding providers and thousands of patients.
- Built frontend components with **React, Material UI, RxJS** and deployed web portal with **Docker** containers.

Rabadan Lab, Columbia U.

June - August 2018

Data/ML Intern — *New York, NY*

- Link: https://www.biorxiv.org/content/10.1101/479824v1.full.
- Employed the **neural network NN-align** (https://tinyurl.com/nn-alignment) to identify MHC class II binding core and affinity.
- Utilized **R and Python (w/ pandas)** to parse genomic high-thoroughput sequencing data to draw conclusions and create data visualizations.
- Explored role of the MHC pathway in immune evasion with data visualization tools, including **matplotlib, seaborn, plotly, and ggplot2.**

Commvault Systems, Inc.

June - August 2019

Software Engineer Intern — *Tinton Falls, NJ*

- Built project currently used in production on **Commvault Engineering Github** (http://bit.ly/cvpysdk).
- Developed **Python SDK** to simplify **Commvault's REST APIs** and perform CommCell Console operations from the command line.
- Utilized **AWS Textract API** to identify/redact personally identifiable entities in files backed up with Commvault. Built with **Java, Apache Maven**.
- Created tutorial for Commvault's Virtual Server Protection Package detailing installation, backup and restore of guest files.

Projects

Scripted

July 2020 - Present

Individual

- Building a web application that transcribes episodes for podcasters (powered by **React, Node**), currently generating $100 MRR.
- Automated transcribing functionality with **AWS Transcribe API**, emailing completed transcripts with **Node.js worker threads, nodemailer**.
- Constructed frontend components with **Material UI**, form validation with **React Hook Form**, and payments with **Stripe**.

Gitlet

April - May 2020

Individual

- Implemented version-control system mimicking basic Git functionality, built with **Java, file system libraries**.
- Created .gitlet directory (based on .git) tracking blobs, commits, and branches (including merge functionality).

Supreme Checkout App

June - July 2019

Team

- Used **axios, requests libraries and end-to-end testing framework PuppeteerJS** to automate checkout on Supreme's online store.
- Circumvented common bot recognition techniques used by Chrome and ecommerce websites **(CSRF tokens, reCAPTCHA, pooky.js)**.
- Utilized callbacks and async/await to run **asynchronous, single-threaded network requests** and purchase multiple items while beating out professional re-sellers and competing back-end based bots.

Skills and Interests

Programming Python, Java, Node.js, Vanilla JavaScript, HTML/CSS, SQL, R, Lisp, Bootstrap, React.js

Technologies Heroku, Amazon Web Services, PuppeteerJS, Pandas, Flask, Apache Maven

Interests Guitar, Kayaking, Reading, Film, Sailing, Indiehacking!