NILAY NEERANJUN

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Education

UNIVERSITY OF CALIFORNIA, BERKELEY – *B.A. Data Science* **–** GPA: 3.463   August 2017 - May 2021

- Concentration: Applied Mathematics & Modeling
- Relevant Coursework: Algorithms, Data Structures, Computer Security, Computer Architecture, Databases, Artificial Intelligence, Techniques of Data Science, Data Mining, Statistics for Data Science, Linear Algebra, Numerical Analysis
- Clubs and Activities: Entrepreneurs @ Berkeley, CalHacks 5.0, CalHacks 6.0, YHack V. 2020

Work Experience

SOFTWARE ENGINEER INTERN – Guidewire Software – San Mateo, CA   June 2020 – August 2020

- Worked in a small and fast-paced environment to develop a brand-new insurance processing system.
- Implemented and tested **REST API** in **Kotlin** & **Spring Boot** to download, submit, and process insurance PDF forms.
- Developed and tested a new **Java SDK** to simplify access to **SOAP**-based **OCR** service for processing PDFs.
- Refactored existing code to run **asynchronously** using Completable Futures resulting in **40% speedup** of code.

WEB DEVELOPER – YB Normal Fishing **–** Fort Lauderdale, FL   June 2017 - August 2017

- Redesigned company's website using **HTML**, **CSS**, and **JavaScript**.
- Implemented **Bootstrap** grid framework for responsive UI design across all platforms.
- Taught owner how to update images on digital gallery and helped redesign logo in Photoshop.
- Set up hosting services for website using GoDaddy and uploaded files via FileZilla.

Projects

QR CODE SOCIAL MEDIA AGGREGATOR – Swift

- Created **iOS app** that allows users to instantaneously share and add other social media accounts using QR codes
- Allows for efficient social media sharing and faster networking.
- Implemented QR code scanner and reader using Apple's **AVFoundation** Framework.
- Implemented **Firebase** backend for authentication and storage of user information and past scans.
- App Store Link: apps.apple.com/us/app/sqre/id1519703310

END-TO-END ENCRYPTED FILE SHARING SERVICE – Go

- Encrypted user information and files using **AES-CTR** mode and **RSA**.
- Maintained integrity of user data using **HMACs** and **digital signatures** despite malicious data server.
- Created file sharing tree data structure to track user relationships and revoke privileges.
- Implemented efficient file append to run in linear time proportional to appended data.
- Wrote tests to verify protection across a variety of attacks.

RECEIPT PARSER / BILL SPLITTER – Python

- Utilized **Google Vision API** to translate images of receipts into raw text.
- Used **regex** to parse receipt into correct components (items, price, tax, etc.).
- Pulled data from online recipe books and other sites in order to verify items were correctly categorized.
- Implemented **Flask** backend to accept user images and return correct partitioning of bill amongst users.

Skills

* Most Experienced

- **Languages**: Java*, Python*, SQL*, Swift, C, Go, HTML, CSS, JavaScript
- **Frameworks & Libraries:** Flask, VueJS, Bootstrap, Pandas*, NumPy, Scikit-Learn
- **Technologies:** Git, LaTeX, Firebase, TeamCity, Jira