Grace Lee

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EDUCATION

Brown University – GPA: 4.0/4.0   *Providence, RI*
Sc.B. Computer Science - design & software principles   *May 2023*
Coursework: Software Engineering, Computer Systems, Data Structures, Calculus, Probability & Statistics, Linear Algebra

EXPERIENCE

Fidelity Investments   *Providence, RI*
Fullstack Software Engineer Intern   *June 2021 – Present*
- Improved ease of use for an internal **Angular/GoJS** diagram app by creating wireframes and applying the changes.
- Initiated development of a graph visualization tool used to show hierarchies within a configuration management system.
- Updated the documentation of a REST API written in Go using Swagger UI.

Brown University Computer Science   *Providence, RI*
Teaching Assistant   *August 2020 – Present*
- Guided students in 3 courses, each 200+ undergraduates, through class material by holding hours/labs for 4 hours/week.
- Revised a homework assignment to incorporate data ethics and helped debut a new project on graph algorithms.
- Delivered 3 presentations reviewing technical concepts and debugging tips to help students start course projects.

Brown Initiative for Policy (BIP)   *Providence, RI*
Co-Director, Water Quality Project   *September 2019 – June 2021*
- Supervised the creation of a lead-poisoning prevention website, prototyped in **Figma** and styled with **CSS/Javascript**.
- Directed and co-authored a case study probing the logistics of 4 successful lead service line replacement efforts in the US.
- Pitched strategies to execute and fund lead pipe replacement to the board of directors of Providence's main water utility.

PROJECTS

Tunes for Change Music Library
React.js, Bootstrap, Node.js, Express.js, MariaDB (SERN)   *Jan 2021 – Present*
- Devised a responsive web app for a music service club alongside 2 team members using **React-Bootstrap**.
- Currently in the process of configuring a password-protected music video library with **MariaDB/Node.js/Express.js.**

Google Maps Clone
Java, React.js, SQLite3, HTML/CSS, Spark   *February 2021 – April 2021*
- Crafted an application with **React.js** that could render a map based on a **SQLite3** database, re-render on zoom or pan, and show the shortest path between 2 input coordinates after running the K-Nearest Neighbors and A* algorithms.
- Designed and maintained a hierarchy of 30+ classes and refactored work to integrate with code from 2 team members.
- Implemented front-end and back-end caching with **Javascript** and Guava Cache, halving drawing and querying time.
- Constructed 150+ JUnit and system tests, and added a real-time user check-in service using a multi-threaded server.

Fuud
Java, React.js, MongoDB, HTML/CSS, Spark   *March 2021 – April 2021*
- Built the UI for a food-based, Instagram-like web app with **React.js** — users can follow/unfollow others, make posts with media, edit profile information, pin and search for restaurants, and get restaurant suggestions via a user-user algorithm.
- Connected frontend to backend for 11 pages by retrieving data from **MongoDB** with POST requests via Axios/**Spark**.

GetUsPPE Automation Scripts
Python, Pandas, NumPy, BeautifulSoup4   *June 2020 - August 2020*
- Developed a web scraper that extracted homeless shelter data to a CSV file from over 10,000 URLs using **Pandas**, **BeautifulSoup**, and **Numpy**, which reduced time spent on homeless shelter call list development by 20% overall.
- Automated the process of connecting PPE donors to healthcare workers with a Python script that cleaned a spreadsheet of donor-recipient matches with **Pandas** and **NumPy**, then sent emails via SMTP, cutting 6 hours of work to 20 seconds.

ACTIVITIES

Driving Tomorrow   *Denton, TX*
Communications Director   *May 2018 – January 2019*
- Launched 8 donation drives, collecting and donating a total of 25,000 items toward poverty reduction and disaster relief.
- Initiated a project which built mini-libraries of 300+ books for 3 community organizations serving low-income families.
- Supervised and mentored an 8-member junior board as part of a 4-member executive board.

SKILLS AND INTERESTS

- **Programming Languages:** Java, HTML5/CSS3, Javascript, Typescript, Python, Scala, C, ReasonML, Racket
- **Technologies:** Figma, React.js, Angular, SQLite, MySQL, MongoDB, Apache Spark, NumPy/Pandas, Git
- **Interests:** Software engineering, design, UI/UX, yoga, hiking, consuming caffeinated beverages