

Grace Lee

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EDUCATION

Brown University — *A.B. Computer Science, GPA: 3.95 (Providence, RI)*

September 2019 – May 2023

Relevant coursework includes Real-Time Embedded Systems and Computational Linguistics (current); Software Engineering, Computer Systems, Data Structures and Algorithms, Deep Learning, Computer Vision, Blockchains and Cryptocurrency, Functional Programming, Calculus/Multivariable Calculus, Statistical Inference, Linear Algebra, Discrete Structures and Probability (completed)

EXPERIENCE

Gusto — *FinTech Software Engineering Intern (San Francisco, CA)*

June 2022 – September 2022

- Restructured the backend of a **Ruby on Rails** dashboard that tracks money flow through Gusto accounts; cut query time from up to hours to seconds, expediting the identification and mitigation of potential losses totaling millions of dollars.
- Wrote and presented a tech spec proposing the new database design, plus API endpoints, UI mockups, and user flows.
- Migrated 3 million records into a new set of tables by double-writing incoming data and running a parallelized backfill.

Brown University — *Teaching Assistant: CS200, CS18, CS111 (Providence, RI)*

August 2020 – May 2022

- Launched a new data structures class and worked in a staff of 60 to identify, preempt, and ease student pain points.
- Designed and coded a course website with **Figma/Jekyll** visited daily by over 500 students and teaching assistants.
- Revised a homework assignment to incorporate data ethics and helped debut two projects on graph algorithms.
- Guided students through class material by holding TA hours, conducting lab sections, and leading review sessions.

Fidelity Investments — *Software Engineer Intern (Remote)*

June 2021 – August 2021

- Improved ease-of-use for an internal **Angular/GoJS** diagramming app: created wireframes, restructured the UI, and adjusted the way diagram components are added by incorporating new functionalities such as drag and drop.
- Ideated how to design and implement a graph visualization tool and integrate it into the diagramming app.

PROJECTS

Google Maps Clone — *Java, React.js, SQLite3, HTML, CSS, Spark*

- Crafted an application with **React.js** that can 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.
- Implemented front- and back-end caching with **JavaScript** and Guava Cache, minimizing drawing and querying time.
- Maintained a hierarchy of 30+ extensible classes and constructed 150+ JUnit and system tests.

Fuud — *Java, React.js, MongoDB, HTML, CSS, Spark*

- 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 API calls via **Axios/Spark**.

GetUsPPE Automation Scripts — *Pandas, NumPy, BeautifulSoup4*

- Automated emails connecting healthcare workers to mask/glove donors and reduced 6 hours of work to 20 seconds.
- Developed a web scraper to extract homeless shelter contact info from 10,000 URLs, slashing 90% of manual data entry.

ACTIVITIES

Brown Initiative for Policy (BIP) — *Project Co-Head, Water Quality (Providence, RI)*

September 2019 – June 2021

- 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.

Driving Tomorrow — *Communications Director (Denton, TX)*

May 2018 – January 2019

- Spearheaded 8 donation drives, collecting and donating 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.

SKILLS AND INTERESTS

- **Programming Languages:** Python, Java, HTML5/CSS3, Javascript, Typescript, Ruby, Scala, C, ReasonML
- **Technologies and Methodologies:** Figma, React.js, Ruby on Rails, NumPy, Tensorflow, Pandas, Git, Agile/Scrum
- **Interests:** software engineering, computer vision, design; hiking, yoga, videography, and indie/rock concerts