Shirley Xiao

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EDUCATION

University of California, Berkeley — Berkeley, CA
B.A. in Computer Science — *May 2022*
- **Highlighted coursework:** Data Structures, Algorithms, Computer Architecture, Operating Systems, Artificial Intelligence, Discrete Mathematics and Probability Theory, Designing Information Devices and Systems, Linear Algebra and Differential Equations
- **Activities:** FEMTech, UrsaTech, BARE Magazine, IEEE (Marketing Team), Ascend Accounting & Finance Organization (Tech Team)

WORK EXPERIENCE

BARE Magazine — Berkeley, CA
Web Designer — *September 2020 – Present*
- Added feature to website to automatically forward posted articles to Facebook and Twitter, accumulating a combined growth of 1000+ followers in two months.
- Redesigned the website style and layout to align with 2020-2021 magazine commandments.

FEMTech — Berkeley, CA
Web Intern — *September 2020 – Present*
- Development and implementation of promotional pages to increase awareness of events, resulting in a 32% increase in website traffic.
- Restructuring site organization and page navigation for a more intuitive user experience, using UX research and UI design.

PROJECTS

Spotify Insights Visualizer
Personal project — *December 2020*
- Designed a browser-based application that displays a graphic representation of a user's listening activity on Spotify, using parameters including genre, tempo, and acousticness.
- Implemented using the Spotify Web API with React and Flask.

Zendesk Ticket Viewer
Personal project — *November 2020*
- Created command line interface and browser-based applications that display information about support tickets from a Zendesk account, using a paginated list.
- Implemented authorization and authentication protocols using an API Gateway to authenticate user and maintain security.
- Utilized the Zendesk API and NodeJS with the Express framework, and thoroughly tested using unit and integration tests.

ChumBot
Personal project — *October 2020*
- Designed a Discord bot to facilitate group matchings and Zoom meeting scheduling based on members' common interests and available times, according to user input.
- Built using the Discord API and deployed with AWS onto the UC Berkeley Ascend Discord server, used by 60+ students.

Portfolio Website
Personal project — *June 2020*
- Developed personal website (shirleytxiao.github.io) with ReactJS to showcase resume and self-projects. Implemented front end of website user interface using HTML/CSS with the Bootstrap library.

NumC
Academic project — *December 2020*
- Implemented a Python library based on Numpy that supports large, multi-dimensional arrays and matrices, and a corresponding collection of mathematical functions using the Python-C interface.
- Applied performance optimization techniques to speed up mathematical operations, with an emphasis on unrolling, SIMD instructions, and OpenMP parallelization.

Gitlet
Academic project — *April 2020*
- A Java-based version-control system for local directories based on the basic features of Git.
- Functionality includes making commits of one or more files, checking out files/commits, viewing backup logs, maintaining branches, and merging changes between branches.
- Utilized hashing and serialization to save states of internal commit tree structures.

SKILLS

Languages: Python, Java, JavaScript, C, C#, HTML5/CSS3, SQL
Technologies: ReactJS, NodeJS, JSON, MongoDB, RESTful APIs, Express, AWS, Git, IntelliJ, LaTeX