

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, Optimization Models, Discrete Mathematics and Probability Theory, Designing Information Devices and Systems, Linear Algebra and Differential Equations
- **Activities:** ANova, FEMTech, BARE Magazine, IEEE, Ascend Accounting & Finance Organization

WORK EXPERIENCE

BARE Magazine

Berkeley, CA

Web Designer

September 2020 – Present

- Added feature to automatically forward posted articles to Facebook and Twitter, accumulating a growth of 1000+ followers.
- Redesigned the website style and layout to align with 2020-2021 magazine commandments.

FEMTech

Berkeley, CA

Web Intern

September 2020 – Present

- Development 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/UI research.

Berkeley ANova

Berkeley, CA

Mentor

January 2021 – Present

- Teach a class of 15 middle school students basic Python skills and concepts (i.e. game design, machine learning, recursion).
- Weekly volunteering in under-resourced middle and high schools in the East Bay to improve computer science education.

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 Jekyll to showcase resume and self-projects. Implemented front end of website user interface using Sass and HTML/CSS.

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.

SKILLS

Languages: Python, Java, JavaScript, C, C#, HTML5/CSS3

Technologies: ReactJS, NodeJS, JSON, MongoDB, RESTful APIs, Express, Jekyll, Sass, AWS, Git, IntelliJ, LaTeX