Bowang Lan

Software Engineer | Full-stack Developer

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EDUCATION

University of Washington — *Undergraduate* Sep 2020 - June 2024

- Major: Astronomy
- CS-Related Classes: Computer Programming II (Java), Data Structures and Algorithms (Java), Interaction Programming (Java & Android)

EXPERIENCE

UWClassmate - Full-stack Developer & Team Leader June 2022 - PRESENT

- Led and managed a team of around10 individuals, ensuring successful project completion, fostering collaboration, and promoting professional growth
- Rebuilt the UWClassmate website using Next.js, TailwindCSS and Prisma, resulting in a more user-friendly and responsive design and increased page loading speed by 50%
- Wrote clear and comprehensive API documentation for the website's backend services, using tools such as Swagger and Postman to test and document the endpoints
- Improved the authentication system of the website by implementing features such as forget password, reset password, third party login, and email verification, enhancing the security and user experience of the website
- Redesigned the API and database schema of the website using best practices in the industry such as indexing, and foreign keys, improving the data integrity and query performance of the website

University of Washington - Research Assistant June 2022 - July 2022

- Developed a website for the EmojiCloud Python package using Python FastAPI (backend) and Next.js (frontend)
- Deployed the backend on AWS (Amazon EC2)
- Implemented a task queue using Celery, RabbitMQ, and Redis, and deployed them on AWS (Amazon ElasticCache for Redis, Amazon MQ for RabbitMQ, Amazon EC2 for celery workers)
- Developed the frontend using Next.js and WebSocket to communicate with the backend

PROJECTS

ChatGPT-Archive - chrome extension

- Developed a Chrome extension for the ChatGPT website using Vite and React, enabling users to search conversations and messages with keyboard shortcut, add conversations and messages to folders, synchronize with external data courses such as Notion, and more

EmojiCloud - website

- Developed a website for the EmojiCloud Python package using Python (backend) and JavaScript (frontend)
- Developed the backend using FastAPI and deployed it on AWS (Amazon EC2)
- Implemented a task queue using Celery, RabbitMQ, and Redis, and deployed them on AWS (Amazon ElasticCache for Redis, Amazon MQ for RabbitMQ, Amazon EC2 for celery workers)
- Developed the frontend using Next.js, and the communication between frontend and backend using WebSocket

Music Player - website

- A website for searching albums and songs and playing song previews using the public iTunes API
- Built with Next.js as the web framework, TailwindCSS as the styling library, framer motion as the Animation library
- Implemented a custom audio player using Web Audio API
- Managed the global state using React Context API

SKILLS

- Python, JavaScript, TypeScript, Java, HTML, CSS, C, C++, R, SQL, Bash
- React, Next.js, Remix, Astro, Framer Motion, Prisma, Express.js, FastAPI, Django, Celery, RabbitMQ, PyQt, Pandas, Numpy, Matplotlib, Seaborn
- MySQL, PostreSQL, MongoDB, Redis, Elastic Search
- AWS, Docker, Vim, Neovim