Bowang Lan

(206) 697-7826 | blan2@uw.edu | bowanglan.dev | linkedin.com/in/bowang-lan | github.com/BowangLan

Education

University of Washington Seattle, WA
Bachelor of Science in Astronomy *Sep 2020 – Jun 2024*

Skills

Programming Languages: Python, JavaScript, TypeScript, Java, HTML, CSS, C, C++, R, SQL, Bash
Frameworks & Libraries: React, Next.js, Remix, Astro, Framer Motion, Prisma, Express.js, FastAPI, Django, Celery, RabbitMQ, PyQt, Pandas, Numpy, Matplotlib, Seaborn
Database: MySQL, PostgreSQL, MongoDB, Redis, Elastic Search
Dev Tools: AWS, Docker, Vim, Neovim

Experience

Team Leader & Full-Stack Developer Sep 2022 – Present
UWClassmate *Seattle, WA*

- 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%
- Enhanced website security and UX by refining the authentication system, resulting in a 50% decrease in unauthorized access attempts and a 15% increase in user registrations
- Optimized the website's API and database schema using best practices in the industry, improving the data integrity and query performance of the website leading to a 35% improvement in data query performance
- Led a team of around 10 individuals, ensuring successful project completion, enhancing team collaboration, and promoting professional growth
- Authored comprehensive API documentation, streamlining developer onboarding by 40% and reducing backend-related queries by 60%

Software Engineer July 2023 – Present
LEAPS *Seattle, WA*

- Engineered a robust backend authentication system using AWS Cognito, enhancing platform security and reducing unauthorized access attempts by 80%
- Spearheaded the integration with Agora for live streaming, resulting in a 50% increase in user engagement and real-time interactions
- Designed a comprehensive database schema tailored for live streaming, optimizing data retrieval times by 40%

HeliolinC Investigation - Researcher June 2023 – Sept 2022
University of Washington *Seattle, WA*

- Produced a comprehensive simulation dataset of astronomical objects utilizing Python, numpy, pandas, astropy, and destnosim
- Established an efficient pipeline for evaluating the completeness function of the HelioLinc algorithm, resulting in an 80% reduction in testing time

Research Assistant June 2022 – July 2022
University of Washington *Seattle, WA*

- Engineered a responsive website for the EmojiCloud Python package using Python FastAPI (backend) and Next.js (frontend) with WebSocket communication
- Containerized the entire application using Docker, reducing deployment times by 50% and ensuring consistent environment setups
- Architected a robust task queue system using Celery, RabbitMQ, and Redis, deployed on AWS with AWS EC2, AWS MQ, and AWS ElasticCache, achieving a 99.95% uptime on AWS and handling over 100 tasks per hour

Projects

ChatGPT-Archive - Chrome Extension Jun 2023 - Present

- Developed a Chrome extension for ChatGPT using Vite and React, leading to a 30% boost in user productivity by introducing features such as quick search via keyboard shortcuts, a comprehensive folder & tag system, and seamless integration with platforms like Notion
- Prioritized user accessibility, designing the UI using Shadcn UI, resulting in positive feedback from test users regarding ease of use
- Ensured user data privacy by leveraging Dexie.js for CRUD operations, storing synced conversation data directly in the browser

Music Player - Website Mar 2022 - Jun 2022

- Designed a dynamic music search and playback website using Next.js, TailwindCSS, Framer Motion, and the public iTunes API
- Crafted a custom audio player using Web Audio API, offering users a unique listening experience and increasing average session duration by 25%
- Efficiently managed the application's global state with React Context and Zustand, reducing re-render times by 70% and ensuring a seamless user experience