HaoMing Xu

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EDUCATION

University of Washington, Seattle, WA   Sept. 2021 – June 2024
Bachelor of Science in Computer Science, GPA: 3.5

Relevant Coursework: Software Design And Implementation, Data Structures and Parallelism, Software Engineering, Distributed Systems, Database Systems Internals, Distributed Systems, Computer Vision

WORK EXPERIENCE

Applied Metadata | Fintech, E-commerce, Data Analytics, and Art   June 2024 – Present
Software Developer
- Developed a full-stack Progressive Web App using JavaScript, React, Node, and Express for financial product calculations, delivering an improved user experience and increased accuracy for loan payments, mortgage rates, and other financial scenarios in the services industry leading to a 30% increase in user satisfaction
- Engineered and implemented a MySQL database to allow users to efficiently save, view, delete, and load previous calculations, reducing user input time by 20%
- Leveraged LangChain and the OpenAI API to build a fine-tuned chatbot that assists users with financial inquiries, improving response accuracy by 25%
- Collaborated closely with cross-functional teams, delivering the project within deadlines while exceeding client expectations through a high-performing, user-centric solution

UNIVERSITY PROJECTS

Beat Buddy - *TypeScript, Node.js, HTML, React, Jest*   April 2023 – June 2023
- Led the backend development and contributed to the design and implementation of BeatBuddy, a music recommendation application. Collaborated within a 6-person team, utilizing TypeScript, Node.js, and the Spotify Web API to deliver a seamless user experience.
- Developed, tested, and optimized backend code to enhance system efficiency and performance, fostering seamless communication with frontend counterparts; enabled on-time project completion and quick issue resolution.
- Analyzed, averaged, and vectorized crucial audio features from each mood to develop a sophisticated mood recommendation algorithm, offering playlist suggestions based on mood and liked song inputs; 85% of users surveyed preferred our mood recommendation algorithm over those provided by Spotify's built-in recommendation system
- Obtained quota extension and OAuth of scopes to eliminate rate limitations, enabling users to seamlessly sample music and save custom playlists to their Spotify accounts

Dog Breed Identification - *Python, PyTorch, HTML*   Feb. 2023 – March 2023
- Leveraged various neural network frameworks in Python to train models on over 20,000+ images, enabling precise classification of dog breeds from input images with a tested 90% accuracy
- Developed a functional website and interactive demo, allowing users to test trained models with their own images

Sharded Linearizable Key/Value Storage System - *Java*   April 2023 – June 2023
- Utilized Paxos consensus algorithm to create a high-performance and fault-tolerant linearizable key/value storage system to partition keys across replica groups; ensuring 99.9% service uptime
- Constructed reconfiguration capabilities, efficiently shifting shards among replica groups to balance load and accommodate the addition or removal of groups; reducing average response times by over 50%

SKILLS

Programming Languages: Python, JavaScript, Java, HTML/CSS, TypeScript, SQL, C/C++
Framework/Technologies: React.js, Node.js, LangChain, Git, Pytorch, NoSQL, Azure