

Xiaorui(Oliver) Shen

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Education

Northeastern University

M.S. in Computer Science

Sept. 2021 – Dec. 2023(Expected)

Seattle, WA

Nanjing University of Information Science and Technology

B.E. in Computer Science

Sept. 2017 – Jun.2021

Nanjing, Jiangsu, China

Experience

Evolution Devices

Jun. 2023 – Sept.2023

Software Engineer Intern

Berkeley, CA

- Contributed to a data analysis and visualization platform for clinics to track and analyze patient data, specifically related to improved walking abilities. This empowers clinics to monitor the effectiveness of the device in addressing foot drop symptoms.
- Refactored the underlying APIs of the data platform for optimal performance and responsiveness. Used GCP's infrastructure to deploy the APIs, resulting in improved scalability, reliability, and enhanced data processing and analysis capabilities by 40%.
- Integrated with GPT-4 for data cleaning in patient datasets, rectifying inconsistencies and errors, leading to a 25% increase in the overall accuracy of the analysis and effectiveness tracking of the foot drop device.
- Enhanced front-end performance by 30% via React components optimization, leveraging lazy loading and React.memo.

Aeyesafe

Sept. 2022 – Dec.2022

Software Engineer Intern

Seattle, WA

- Enhanced elderly care by developing a health tracking backend for a sleep sensor platform, enabling vital sign monitoring and anomaly detection.
- Boosted system efficiency by 25% through optimized integration of user and biometric data into a PostgreSQL database using Python, FastAPI, and strategic database enhancements such as indexing and partitioning.
- Optimized database operations and improved query performance by 30%, through the strategic implementation of a Redis cache on an AWS ElastiCache cluster, resulting in faster data retrieval and reduced latency.

Zbridge Intelligent Technology Co., Ltd.

Apr. 2021 – Aug. 2021

Software Engineer Intern

Suzhou, Jiangsu, China

- Enhanced an internal staff management web app's functionality, resulting in a more effective user experience.
- Developed reusable React components using Hooks (like useState, useEffect, useRef), and managed complex state interactions with Redux, resulting in a 20% reduction in code redundancy and a 15% improvement in overall application performance.
- Improved operational efficiency by 40% by incorporating D3.js to visualize expense report data, providing insights into spending patterns for expense optimization.

Projects

Distributed E-commerce Application | Git Repo: [Search Module](#) [DB Optimization](#) [ELK Pipeline](#)

- Contributed to the development of a scalable e-commerce backend using SpringBoot, MyBatis, SpringCloud, and AWS.
- Designed and implemented scalable search module, database performance optimization and real-time log monitoring solution.

Tiny URL – URL Shortener Application | Git Repo: [TinyURL](#)

- Designed and developed a user-friendly URL Shortener app with React, Spring Boot, MongoDB, and Redis supporting both shortening URLs and generating QR codes for easy sharing.
- Ensured URL uniqueness and reduced data collisions with Snowflake Algorithm, while Base-58 encoding improved readability.

Technical Skills

Languages: Java, Python, C++, Node, JavaScript/TypeScript, Go, HTML, CSS, Lua.

Databases: MySQL, Redis, Elasticsearch, MongoDB, PostgreSQL, Firebase, Memcached.

Technologies/Frameworks: Spring Boot, React, Express, Zookeeper, Kafka, RabbitMQ, Docker, Kubernetes, gRPC, Netty, AWS, Git.