Josh Lin

647-891-5329 | jiexulin99@gmail.com | linkedin.com/in/jiexulin | github.com/linj121

Education

McMaster University Hamilton, ON
Bachelor of Applied Science in Honours Computer Science *September 2018 – April 2023*

Technical Skills

Languages: JavaScript, TypeScript, CSS, HTML, Java, Python, SQL, Shell
Web Frontend: React, Redux, MUI, Tailwind, Sass, GraphQL, Webpack, Vite, Jest, Cypress
Web Backend: NextJS, NodeJS, Express, Django, Prisma, PostgreSQL, MongoDB
DevOps: Jenkins, Nginx, Docker, Kubernetes(K8s), AWS, GCP
Tools/Others: Git, Github, OpenCV, Jira, Excel, Figma, Postman, FFmpeg

Experience

Fullstack Web Developer July 2023 – Present
Longan Vision Corp. *Hamilton, ON*

- Leading a team of 3 in building a live stream platform from scratch, employing the **Agile** approach, reviewing **PR** and solving code conflicts using **Git**, and writing technical documents to guide the team
- Conceptualized user-friendly UI designs using Figma, implemented them using **React**, **Redux**, **MUI**, utilized **GraphQL** for communication with backend services and established end-to-end tests with **Cypress**
- Mitigated a notable latency issue in HLS streaming by transitioning to **WebRTC** protocol, reduced the live stream latency from 8s down to **300ms** $\sim$ **1.8s**, which ensured real-time communication
- Tackled the scalability challenge in WebRTC peer-to-peer connections by leveraging a media server for handling concurrent streams, significantly reduced client side burden and improved **system scalability**
- Fortified stream security and implemented user authentication by developing a **REST API** that reacts to the **Webhook** of the media server, utilizing **NodeJS**, **Express**, **Prisma**, **MongoDB**, and **JWT** (Json Web Token)
- Reduced system resource consumption by utilizing **Webhook** for on-demand stream publishing and playing
- Integrated object detection into live stream with a latency under 2s, using **OpenCV**, **Django** and **FFmpeg**
- Improved development productivity by automating **CI/CD** pipeline for frontend and multiple backend services using **Jenkins**, **Docker Compose** and **Nginx** on **GCP** (Google Cloud Platform)

Data Analyst Intern June 2021 – Jan 2022
Didi Global Inc. *Beijing*

- Utilized funnel analysis across various dimensions to tackle customer churn, and collaborated with operations department to boost monthly customer retention rate by **5.2%** and GMV by **2.8%**
- Addressed customer inactivity issue by designing a lifecycle framework, aiding the data department in setting up a DWM table, which enhanced analysis **efficiency** and laid a solid foundation for future analysis
- Improved work efficiency and reduced manual work by automating daily **HiveSQL** data extraction and Excel report generation utilizing **Python** integrated with chatbot API, which ensured timely report sharing

Projects

xRangerRtms | *TypeScript, React, MobX, Flask, Django, PostgreSQL, Git* January 2023 – April 2023

- Collaborated in a team of 4 using **Agile** methodologies to develop a real-time online monitoring and management system, enabling customers to track robot locations and statuses effectively and efficiently
- Conceived a user-friendly frontend interface using **TypeScript** and **ReactJS**, streamlining the monitoring of robot status, alerts, and notifications. Amplified UI aesthetics using **Bootstrap-React, Font Awesome, and SCSS**, and utilized **MobX** for application state management
- Orchestrated a model for maintaining robot data using the **MVC** pattern, retrieving real-time and historical data from the xRangerTelemetry backend **REST API** asynchronously
- Devised a reference counting mechanism using React **useEffect** hook to start and stop updates for the robot model based on usage across different components. This strategy decreased http requests, reduced backend server load by **13%**, and ensured data consistency across all components