Yinglun(Leo) Suo

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Education

Western University   2023/09 — 2024/10
M.Eng. in Software Engineering(Artificial Intelligence)   London, ON, Canada

University of Waterloo   2016/09 — 2020/06
B.Math in Computer Science and Statistics (Double Major)   Waterloo, ON, Canada

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Skills

- **Programming Languages**: JavaScript, React, Vue, Node.js, Python, Java, SQL, CLI(Bash, Pwsh)
- **System & Tools**: Linux, Docker, AWS, Azure, GCP, MySQL, PostgreSQL, Firebase, Redis, Git, CI/CD

Working Experience

Manitoulin Transports   2021/04 — 2023/08
Junior Web and Mobile developer   Mississauga, ON, Canada

- Designed and maintained MT Direct, a web portal that provides secured administrative tools and shippping management for NA freight transportation services, built a microservices architecture with Vue.js and Python Django.
- Developed new user registration process leveraging Vuex for data synchronization. Integrated real-time validation on required fields, invalid input. Designed API to automate creation process using existing user profiles as templates.
- Customized the Vue-Quasar table component to provide multi-column searching, sorting, filtering and re-arranging. Adjusted API to save/load of table preferences, applying saved preferences at the backend to reduce loading time.
- Revamped the user password reset API to include Multi-Factor authentication from the company VPN, along with email/text code verification and security questions, to prevent security risk from compromised personal infos.
- Revamped the web's message notification API to interact with the Twilio API, enabling automated, real-time email/ text notifications with GIF and URL. Designed a subscription web page with history record table for this API feature.
- Optimized backend data save/load with Django ORM by leveraging QuerySet for filtering and sorting, utilizing select_related/prefetch_related for multi-table queries, and F Expressions to reduce calculation time at backend.
- Developed a rating system to collect portal using feedback from active user accounts by monitoring login activity through web sessions. Designed the database schema to store reviews, enabling analysis of user engagement trends."

Projects

Online-Book Store ⓞ Online-BookStore *as Project Lead and Backend Developer*   2023/09 — 2024/04

- Built a book e-commerce platform with React and Node.js, integrated Google Firebase for real-time database and authentication, implemented CI/CD with GitHub Actions, and deployed on Google Kubernetes Engine (GKE).
- Designed a database schema using SQL to store book details like author, publisher, and genre; implemented real-time lookups with fallback to Google Books API for automatic updates when book detail is missing.
- Developed a shopping cart feature to handle cart storage, payment management, and order history, leveraging JWT for user authentication and Cloud Firestore for real-time data consistency.
- Built an admin interface for moderating user content, managing book lists, and controlling user access. Integrated Firestore Authentication to enable secure multi-platform account login and registration.

Android Tower Defence Game *as Project Lead and framework constructor*   2019/04 — 2019/11

- Designed and developed an Android mobile tower defence game using Java and Android Studio. Leveraged J2EE frameworks such as Hibernate and Spring MVC for efficient back-end integration and application design.
- Developed an auto-targeting system for towers using spatial partitioning to optimize enemy detection within attack ranges and observer pattern to updates enemies status like HP, allowing towers dynamically adjust target.
- Developed a card-drawing system for players to unlock new towers, coupled with a upgrade system that increases tower range, attack speed, and attack power by merging two same cards, enriching game replayability.
- Enable the in-game screen recording feature and integrated the Facebook API allowing users to record and share gameplay scenes on social media platforms like Facebook.