Yang Li

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Education

Master of Computing
The Australian National University Feb 2024 - expected completion Nov 2025
GPA: 6.5/7

Master of Engineering, Traffic and Transportation Planning and Management
Beijing Jiaotong University Sept 2018 – Jun 2021
GPA: 84.8/100

Bachelor of Engineering, Traffic Engineering
Beijing Jiaotong University Sept 2014 – Jun 2018
GPA: 88.4/100

Volunteer Experience

Artifex Game Jam Subsite Canberra Sept 2024
Volunteer Developer **Artifex**

Description: Contributed as a front-end developer in an agile team to build a subsite for Artifex's game-jam events, ensuring a responsive and engaging user experience.

Technologies: **JavaScript**, **Svelte**, SvelteKit, GSAP, **Git**, GitHub Projects

- Collaborated with an agile team in a one-week sprint with the guidance of the Scrum master to achieve efficient teamwork.
- Engaged with tech and non-tech teammates to refine backlog items to ensure the clarity and feasibility of implementing features.
- Designed and implemented dynamic UI components using Svelte, SvelteKit, and GSAP to enhance user engagement, optimise site performance, and improve extensibility for future events.

Project Experience

Decorit.org [Link] Canberra Jun 2024 – Jul 2024
Full-stack Software Developer

Description: Developed a 3D model-sharing platform using React.js and Next.js. Deployed the application on AWS EC2 with CDN integration to ensure high performance and scalability.

Technologies: **TypeScript**, **React.js**, **Next.js**, TailwindCSS, PrismaORM, SQLite, PM2, **AWS**, CDN, **Git**

- Planned and maintained a feature list to coordinate updates throughout the development lifecycle.

- Built the website with SEO optimisation using **React.js**, **Next.js**, and TailwindCSS to deliver a smooth and responsive user experience.
- Developed a backstage dashboard to manage 3D-model metadata by using **PrismaORM** with SQLite.
- Deployed the website on **AWS EC2**, utilising **PM2** for efficient process management and CloudFront CDN to enhance content delivery speed and resource caching.

Subway Train Operation Optimiser and Simulator Beijing Feb 2020 – Aug 2020
Application Developer **State Key Laboratory of Rail Traffic Control and Safety**

Description: Contributed as the leading role to develop a solution for optimising energy-efficient subway train operation plans, visualised by a dynamic graphical simulator.

Technologies: **JavaScript**, Electron, **Node.js**, jQuery, **Python**

- Consulted with stakeholders to translate the program goal of Smart Subway Optimisation into clear and refined technical requirements.
- Led a three-person research team to validate energy-saving optimisation algorithms and ensure the accuracy of train operation simulations.
- Improved the solution iteratively by responding to the stakeholders' updated feedback on the graphical representation.
- Developed a cross-platform desktop application using Electron to ensure compatibility across operating systems and future extensibility.

Skills

Languages:	**TypeScript**, JavaScript, **Python**, C#, Java, Node.js
Web tech:	**React.js**, **Next.js**, Flask, Restful API, TailwindCSS, Electron
Databases:	SQL, SQLite, PrismaORM
Tools:	**Git**, AWS, Docker

Publication

Yang Li, Xin Yang, Jianjun Wu, Huijun Sun, Xin Guo, Li Zhou, Discrete-event simulations for metro train operation under emergencies: A multi-agent based model with parallel computing, *Physica A: Statistical Mechanics and its Applications*, Vol. 573, pp.125964, 2021. https://doi.org/10.1016/j.physa.2021.125964

Xingxing Yang, **Yang Li**, Xin Guo, Meiling Ding, Jingxuan Yang, Simulation of energy-efficient operation for metro trains: A discrete event-driven method based on multi-agent theory, *Physica A: Statistical Mechanics and its Applications*, Vol. 609, pp.128325, 2023. https://doi.org/10.1016/j.physa.2022.128325