

Yuan Guo

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Education

Fairleigh Dickinson University, Vancouver, Canada

Master of Applied Computer Science

2024 – 2025

GPA: 3.67/4.0

- Achieved **A** grades in courses such as **Data Structures and Algorithms**, **Operating Systems**, and **Assembly Language**.
- Independently developed a food delivery project using **Java**, with **React** for the front-end and **Spring Boot** for server-side development.

University of Warwick, Coventry, UK

MA Digital Media and Culture

2021 – 2022

2:1 Class Honors

- Acquired advanced **quantitative and qualitative research methods**: Linear regression, Factor analysis, Logistic regression.
- Developed technical skills in **R Studio** to analyze and visualize data in digital media research projects.

University of Liverpool, Liverpool, UK

BA English and Communication Studies

2017 – 2021

2:1 Class Honors

- Ranked in the **90th percentile** for grades in mathematical subjects, including **Calculus** and **Linear Algebra**.

Technical Skills

- Proficient in **HTML5**, **CSS3**, and **JavaScript**, with a deep understanding of the **box model**, **responsive design** (e.g., Flexbox), and **asynchronous programming**.
- Skilled in **React** framework and experienced with component libraries like **Ant Design** for building dynamic, user-centric interfaces.
- Proficient in **ES6+**, with knowledge of **functional programming** and type-safe code development using **TypeScript**.
- Proficient in **Java**, with strong knowledge of **collections**, **multithreading**, and **object-oriented programming principles**.
- Experienced with frameworks such as **Spring** and **Spring Boot** for building robust, scalable server-side applications.
- Skilled in **MySQL**, with expertise in **indexing**, **transactions**, and concurrency control mechanisms like **MVCC**.
- Experienced in using **Redis** for caching, distributed locks, and handling **high-concurrency scenarios**.
- Proficient in version control using **Git**, ensuring efficient collaboration in team environments.
- Experienced with **Linux command-line tools** and **Shell scripting** for system management and automation.

Project Experience

ChatSphere Real-time Chat Application

2024

Technologies: React 18, React Router, TypeScript, Redux, SCSS, Firebase

- **Responsive Design**: Built a user interface with React, ensuring seamless performance on different devices.
- **Style Optimization**: Organized CSS using SCSS nested rules, enhancing readability and maintainability.
- **State Management**: Managed user information states with Redux, simplifying component communication and debugging.
- **Component-Based Development**: Created modular components with clear responsibilities, improving code readability and scalability.
- **Dynamic Routing and Permissions**: Used **useContext** and **useEffect** for dynamic route management and rendering personalized friend lists based on user roles.
- **Back-End Integration**: Leveraged Firebase for real-time database storage, authentication, and efficient data management.

Sky Takeout

<https://github.com/FKKuser/sky-take-out>

Description: A restaurant management software solution with both an administrative backend and a mini-program for customers.

- Designed and developed backend business logic and **database architecture**.
- Deployed using **Docker containerization** to prevent single points of failure.
- Implemented **JWT-based stateless single sign-on** to address session-sharing issues in clustered environments.
- Abstracted common code logic using **custom AOP aspects** for request/response logging and **Metrics** collection.
- Optimized performance by caching data (e.g., restaurant and menu information) in **Redis**, reducing database queries and improving efficiency.
- Used **Swagger** to auto-generate **API documentation** for seamless testing and development.
- Deployed **Nginx** as a static file server, load balancer, and reverse proxy for **Tomcat**.