Jialuo (Eric) Chen

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Education

University of Toronto

September 2022 - May 2027

Bachelor of Applied Science and Industrial Engineering with PEY-COOP

Toronto, ON

- Minor: Computer Science, Artificial Intelligence in Engineering, Engineering Business
- Relevant Courses: Data Structure and Algorithm, Database Systems, Object Oriented Programming, Software Design and Architecture, Version Control Systems, Design Pattern, Machine Learning, Deep Learning

Skills

Programming: Python, Java, JavaScript, TypeScript, C, HTML/CSS, SQL, R, Matlab, Shell Scripting Technologies: Git, Linux, Spring Boot, React.js, node.js, PostgreSQL, NoSQL, RESTful API, Figma, JQuery, JUnit, Jest Concepts: Clean Architecture, SOLID Principles, UML, Test-Driven Development, Responsive Design Additional Skills: Communication, Teamwork, Problem-Solving, Collaboration, Leadership, Microsoft 365

Experience

Web Development Club, University of Toronto

November 2024 - Present

Software Engineer

Toronto, ON

- Contributed to **WeedOut**, an **open-source** Python library for data preprocessing, by leading the development of its documentation platform to enhance collaboration and accessibility for the open-source community.
- Designed and developed the documentation webpage layout and UI using **Figma**, and implemented it with **React.js**, **JavaScript**, and **React Bootstrap**, providing responsive access to function details, user guide, and installation.
- Implemented backend logic using Python Flask and RESTful APIs, supporting estimated usage by 300+ users.

Centivizer May 2024 – August 2024

Front End Developer

Toronto, ON

- Enhanced user login functionality for a whack-a-mole game using **React.js** and **JavaScript** to add input fields including id, age, and sex to capture essential data from **100+** users, supporting research team's data classification.
- Packaged user input and IP address into **JSON** objects and transmitted them to **back end API** using **PUT** and **POST** requests via **fetch**, enabling accurate and streamlined back end data storage.
- Improved the game **interface** using **React.js** and **CSS**, incorporating a navigation header and displaying basic user details, enhancing usability and functionality.

Hangzhou Cellinemory Brand Management Co., LTD

May 2023 - July 2023

Technology and Operation Intern

Hangzhou, China

- Revamped the company's Shopify website by updating the visual design and domain name, enhancing the site's readiness for international e-commerce expansion.
- Optimized Stable Diffusion hyperparameters to train on 100+ images of Korean model datasets, achieving an 8% improvement in image quality for product visualization and minimizing reliance on professional model photoshoots.

Projects

Personal WealthTracker link | Java, Clean Architecture, OOP, React, Git

July 2024 - Present

 $Co ext{-}Leader$

- Developed and designed a Personal WealthTracker System using **UML**, **Clean Architecture**, and **SOLID Principles** to ensure scalability and maintainability, enabling seamless team collaboration and robust feature integration.
- Implemented a responsive front end UI using React.js, JavaScript, and HTTP requests, enhancing user experience by optimizing performance and ensuring seamless interaction with the system's backend.
- Implemented a robust backend system using **Spring Boot** and **RESTful APIs** to ensure stable integration with the front end, enabling features such as user transaction management and joint account functionality.
- Achieved 93% test coverage in business and application layers using JUnit unit testing to enhance system stability.

Portfolio Website link | React, Chakra UI, CI/CD, Git

January 2025

- Developed a personal portfolio website using **React.js**, **JavaScript**, and **Chakra UI** to highlight my skills, personality, and experiences, featuring animated text and an interactive, user-friendly design.
- Automated website deployment on GitHub.io using a CI/CD pipeline with deploy.yml, enabling automatic updates, error checking on each push, and eliminating manual deployment efforts.

Course Management System | Java, SQL, Hibernate, JPA, Docker, Git

October 2024 - November 2024

- Executed complex SQL queries on a Microsoft Access Database to analyze course statistics, including average scores and student information, and exported results to CSV files to provide actionable insights for future planning.
- Leveraged **Docker** to containerize the database environment and applied **JPA** and **Hibernate** to establish seamless connectivity between the Java application and database, enabling efficient execution of SQL operations.