

Rachel Xing

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EDUCATION

Algonquin College, Ottawa, ON

Aug 2025

Diploma of Science, Web Development, Dean's Honor List, GPA 4.0 / 4.0

Chengdu University of Information Technology, Chengdu, China

Jun 2022

Bachelor of Arts, English Literature

SKILLS

- **Languages:** JavaScript, TypeScript, Java, Python, SQL, HTML5, CSS3 (SCSS, SASS), C#
- **Frameworks:** React.js, Next.js, Spring Boot, Spring JPA, Flask, Laravel, Bootstrap, Tailwind CSS, .NET, Blazor
- **Tools:** MySQL, SQLite, ElasticSearch, Redis, Git, Docker, Kubernetes, Figma, Cursor, Claude Code, AWS

WORK EXPERIENCE

Software Developer (Client Project), Carlington Community Health Centre | Ottawa, ON

May 2025 - Present

Technology: React.js, JavaScript, Vite.js, Tailwind CSS, AWS AppSync, Elastic Search, SES, Bedrock, Step Functions, Claude

- Developed an **expense management platform** to streamline claim submission process, including modules of claim management, user management, cost centre management and department management
- Designed a **configurable claims submission workflow** with pluggable step interface, scaled complexity to support multiple claims type and claims item format. Developed a **near real-time visibility and bulk operations** console.
- Developed a full-stack approval application, with reusable components to support both rule-based and manual approval processes. Defined **rules data mode and a rules-engine** to support edge cases such as senior leader overrides.
- Implemented automated email and SMS notification with event-driven integration to AWS Simple Email Service.
- Implemented an **asset management service** to support submission, generation and downloading of claims, approval status and other documentations in CSV, PDF and other file format. Integrated with Elastic Search for search and filter.
- Proposed and developed a **Gen-AI assistant** to streamline claims submission. Developed **agentic memory and context engineering** to organize user data, claims history to generate context-aware suggestions and explanations.
- Proposed and developed a **Gen-AI approval evaluation agent** to streamline manual approval steps with relevant historical context and policy documents. Reduced manual approval effort by **25%** with approval/reject advice and reduced code duplication. Implement UX state management to improve flexibility and readiness for AI integration.
- Developed a WCAG 2.1 AA compliant UX, optimized frontend and service to reduce page load times under 2 second.
- Designed and implemented a **role-based access control system** with Super Admin, Admin, Approver, and Regular User permissions. Developed a source of truth data storage for departmental hierarchy management.
- Integrated embedded **Power BI dashboards** and custom analytics for visualizing expense and departmental statistics.
- Introduced and conducted knowledge sharing about coding agents and IDE, pioneered leveraging **AI to improve developer productivity**. Volunteered to maintain the team developer prompt library, knowledge base, and MCP library.

Technical Solutions Specialist, Bosch | Chengdu, China

Aug 2022 - Dec 2023

- Provided IT technical support services to both local and foreign Bosch employees.
- Developed **tooling to streamline and automate** employee permission, software licenses, and IT assets management.
- Provide frontline support for software **system operational issues** before engaging developer teams on-call, focusing on hardware and network related causes. Conduct investigation and documentation based on system logs and metrics.

PROJECT EXPERIENCE

Trader Visualization Dashboard, J.P. Morgan Virtual Internship

Aug 2024 - Sep 2024

Technology: TypeScript, React.js, Java, Spring Boot, MySQL, Perspective Visualization Library

- Developed a **real-time dashboard** for traders and investors to monitor their portfolio and watchlist, and make informed trading decisions based on stock pricing history, trends, trade volume and other statistics.
- Designed a **reusable library** of clear, appealing visualization widgets to reduce dashboard development effort by **20%**.

- Published the frontend widget library for adoption by peer team's products.
- Improved **logging, metrics, and test** coverage across the trader application. Facilitate and contribute to a **bug-bash** activity to detect, document, and resolve defects prior to launching the application.
- Contributed to RESTful service backend to support dashboard UX with **data aggregation, analysis, and transformation**.
- Integrated with J.P Morgan's Internal data fetch API to load raw data on demand, and periodically for precomputation.
- Proposed and designed a **pre-computed statistics data cache** to improve rendering latency. Defined data model and deployed the schema on a MySQL database.

Pokémon Trainer Management System, Personal Project

Jul 2024

Technology: React.js, JavaScript, Java, Vite JS, Bootstrap, NPM, SpringBoot, Spring JPA, MySQL, Elastic Search

- Developed a pokémon trainer management application to support profile management, search and permission control.
- Designed and developed a responsive full-stack web application and implemented the end-to-end logic.
- Defined profile data model. Implemented a combined MySQL and Elasticsearch data storage to support **full-text and relevance based search**. Integrated the data store with the application service.
- Designed and implemented **validation logic** for trainer form inputs to ensure data accuracy.
- Designed a **permission control** logic to support relationship-based and role-based access for trainers and admin.

Student Registrar System, Personal Project

Jun 2024

Technology: C#, Blazor, MySQL, Dapper

- Developed web application for course catalog and student registration use cases.
- Implemented dynamic UX for student creation, registration, and course selection, with validation rules for student types.
- Developed a data store for student, course, and registration data model, leveraged Dapper to streamline ORM and service integration logic. Profile common and long running queries and added index to reduce latency.

ACHIEVEMENTS

- Udemy Online Course: React - The Complete Guide 2024 (incl. Next.js, Redux)