

# Zane Zhang | Full-Stack Software Engineer

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🌐 <https://zaneportfolio.vercel.app/>

Experienced software engineer with **over 3 commercial years** in Agile web development, delivering high-quality commercial applications for a range of industries, including **insurance and mining**. Proficient in **ReactJS, TypeScript, Vanilla JS, Redux, GraphQL, REST APIs, CI/CD tools, Node.js, C#, .NET and SQL**., I work closely with developers, QA, and BAs in Agile teams that use **Jira** and **Azure DevOps**.

## WORK EXPERIENCE

### 1. Software Engineer

📁 **RPMGLOBAL**

📍 Brisbane (2024-07 - present)

ShiftManager is a web-based product designed for short-term planning and execution in the mining industry. It helps teams stay in sync and provides them with a clear, shared plan. ShiftManager's real-time updates provide quick responses and easy adaptation to changes during each shift.

#### *Achievements:*

- **Technical migration:** Move one of major modules (Actuals screen) in Shift Manager from legacy **Ext.js** to **React**, improving maintainability and enabling faster bug resolution.
  1. Rebuilt the UI with **Material UI** components.
  2. Managed application state and data flow using **Redux**.
  3. Implemented routing and navigation with **React Router**.
- **Designed and developed the Multi-Shift Tasks feature:** To support large-scale task grouping across multiple shifts. **C#** and **.NET** were used in the engineering of backend APIs to manage dynamic task generation according to average rate and duration. Ensured that task changes dynamically adjusted related tasks to maintain logical integrity.
- **Bryntum React Gantt Chart Integration:** To improve task visualisation. made it possible for users to view and work with task data, such as assignments, dependencies, completion metrics, progress, plan objectives, and multishift relationships.

#### *Responsibilities:*

- Participated in sprint planning, backlog grooming, and daily stand-ups in an Agile team environment.
- Collaborated closely with teammates to troubleshoot and resolve technical issues.
- Found, examined, and fixed bugs in both front-end and back-end systems.
- Used Checkmarx to perform security checks and fix vulnerabilities found prior to product releases.

### 2. Software Developer

📁 **Cavalry Consulting**

📍 Brisbane (2023/07- 2024/07)

Greg IVMS, used by Santos and Arrow Energy, is a fleet and vehicle safety management platform. It delivers real-time data and analytics to improve operational efficiency and safety. Built with modern technologies like **Next.js, Tailwind CSS, Node.js, and MongoDB**, it features a responsive design and robust backend powered by **RESTful APIs**.

#### *Achievements:*

- **API Development for Data Integration:** Developed APIs to link directly to clients' original databases, retrieving the latest IVMS data, which was then cleansed and organized before being saved to the Greg IVMS database.
- **Power BI Integration:** Integrated Power BI into the system, enabling users to view fleet management reports and dashboards directly within the application.
- **Security Enhancements:** Strengthened system security by implementing two-factor authentication (2FA), secure session handling, CSRF protection, HTTPS, and hashing algorithms for user and organization authentication.


#### *Responsibilities:*

- **System Architecture & Development:** Spearheaded the full lifecycle development of an IVMS system from initial concept to final delivery, including system architecture design, UI/UX design, and software development.

- **Client Interaction & Requirements Gathering:** Conducted client meetings to gather requirements, translated them into actionable tasks and maintained regular communication to ensure alignment and timely incorporation of feedback.
- **Quality Assurance & Code Testing:** Implemented code testing using Jest.JS to identify and fix bugs before features were merged into the development stage, enhancing system stability and security.

### 3. Software Engineer

#### Codafication

 Brisbane (2021/10 - 2023-06)

**Crunchwork**, an end-to-end project management platform, can be configured for any industry. It is a microservices-based application using **Docker** and **Kubernetes** containers deployed to **AWS** and **Azure** based on the clients' demands. The platform mainly focuses on insurance industry currently, which has couples of extensions to help insurance company better manage their claims.

#### *Achievements:*

- **Feature Implementation for Attendance Tracking:** Implemented a new feature for onsite user attendance in Crunchwork, enabling the creation of timeline events, which assists the management team in tracking and managing job execution times.
- **Client Onboarding & Customization:** Assisted new clients (JB Hi-Fi, IAG) with product setup and tailored Crunchwork to meet their specific needs.
- **Microservices Development for User Management:** Created a new microservices extension to facilitate user account management on the platform.
- **System Integration with Insurance Services:** Integrated Crunchwork with other insurance services such as Grafana, Opus, and Xero to enhance functionality and data flow.

#### *Responsibilities:*

- **Full Stack Development & Maintenance:** Maintained and developed new features in Crunchwork using a stack including React, TypeScript, MST, GraphQL, Apollo Client, Node.js, and styled-components.
- **Performance Optimization:** Managed package size using Webpack's bundle analyzer for efficient imports and applied tree-shaking when feasible.
- **Code Quality & Stability:** Refactored complex features into clean, maintainable components and resolved conflicts between business requirements and application logic. Actively reviewed team code to ensure stability and integrity of pull requests before merging into the main branch.
- **Agile Collaboration:** Collaborated closely with QA, BA, product owners, and other developers in a 12-person Agile team using Jira.

## SKILLS

#### Front end:

- React, Next.JS, TypeScript, Vanilla JS, MST(Mbox State Tree), Redux, Jest.JS, HTML & CSS
- Material UI, Tailwind CSS, Bootstrap, StoryBook

#### Back end:

- Node.js, C#, .NET, Express, GraphQL, REST API
- Postgres, MySQL, MongoDB, RavenDB, Kubernetes, Docker

#### Development Tools & Platforms:

- GitHub, Azure DevOps, Postman, Figma

## EDUCATION

### University of Queensland

Master of Interaction Design, 2019-2021

#### Major course:

Software Engineering (Python), Web Design, Advanced Information System(SQL), Web Information System, Human-Computer Interaction, Graphic Design, Physical Computing.