

# KRYSTAL GU

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## SUMMARY

Full-stack Software Engineer specializing in **React.js** and **Next.js** for frontend development and **Node.js-based backend** frameworks such as **Express.js**. Proficient in **JavaScript/TypeScript**, **RESTful API design**, and SQL/NoSQL databases (**MySQL**, **PostgreSQL**, **MongoDB**). Experienced in cloud deployment and DevOps using Docker, and CI/CD pipelines, with a strong focus on building scalable and maintainable web applications.

## TECHNICAL SKILLS

**Frontend:** JavaScript, TypeScript, React.js, Next.js, Vue.js, HTML5, CSS3

**Backend:** Development of RESTful APIs with Node.js, using Express.js and Next.js frameworks

**Cloud and serverless Platform:** AWS Lambda, API Gateway, S3, DynamoDB, GitHub Actions (CI/CD), Docker, Serverless Framework

**Tools & Others:** MySQL, MongoDB, PostgreSQL, Postman, Agile Development, Figma

## EDUCATION

**University of Melbourne** Feb 2024 - Dec 2025  
Master of Software Engineering

**Shanghai University of Finance and Economics** Sep 2019 - Jun 2023  
Bachelor of Computer Science and Technology

## WORK EXPERIENCE

**Software Engineer, EP Equipment** Melbourne, Australia Feb 2025 - Jul 2025

- Contributed to the development and optimization of the company's internal **CRM system** and **corporate website**, enhancing automation, usability, and SEO to support digital operations and sales workflows.
- Built a **React frontend** and **Node.js-based backend (Express.js)** for the CRM system to manage the full forklift rental lifecycle, including inventory tracking, rental scheduling, and maintenance management.
- Managed **MongoDB database** to store customer, order, and product information, including detailed configuration and specification data, ensuring integrity and real-time synchronization across sales and service modules.
- Integrated external email APIs to enable auto-population of client data, streamlining sales processes and reducing manual data entry.
- Developed and maintained a **Next.js-based** corporate website with server-side API routes for dynamic content and online ordering, applying **SEO optimization** and automated **CI/CD deployment** via **Vercel**.

**Software Development Engineer, Genex Consulting** Melbourne, Australia Jun 2024 - Aug 2024

- Developed scalable backend services for an intelligent transportation system, leveraging **Node.js**, **Redis Streams**, and **PostgreSQL** to support real-time data processing and low-latency APIs.
- Collected and processed transportation-related data from internal datasets and public APIs, streaming through **Redis Streams** to enable asynchronous, event-driven data pipelines.
- Built and deployed data producer and consumer services in **Node.js**, where producers ingested data into **Redis** and consumers processed and persisted the results into **PostgreSQL**.
- Implemented **Redis caching** for frequently accessed data, optimizing API response times and **reducing end-to-end latency by 34%** on average.
- Developed **RESTful APIs** with **Express.js** to serve downstream machine learning pipelines and frontend applications, providing real-time, low-latency data access.
- Automated ingestion and integration workflows using **Node.js scripts**, ensuring seamless data synchronization, and conducted comprehensive testing to validate reliability and performance.

**Product Intern, Nielson IQ** Shanghai, China Oct 2023 - Feb 2024

- Participated in the end-to-end development of a data-driven influencer (KOL) screening platform to help brands efficiently identify suitable social media influencers across RedNote, TikTok, and Weibo.
- Developed core frontend modules using **React**, including dashboards, KOL management, and brand analysis interfaces for real-time data visualization and campaign tracking.
- Built and integrated **Node.js-based backend APIs** to connect with **third-party data platforms**, retrieving real-time KOL profiles, fan demographics, engagement metrics, and historical post content.
- Processed and cleaned influencer content data to support the development of a blog classification model, enabling topic categorization.
- Implemented **data pipelines** for feature extraction and model training, ensuring data quality and efficient handoff between the backend and the ML components.
- Integrated **external Maps APIs** to visualize influencer locations and campaign coverage, assisting marketing teams in region-based audience targeting and campaign planning.