

Summary

Full-stack and IoT engineer with 5 years of experience in creating end-to-end solutions for data management, analytics and automation.

Experience

Software Engineer | Kogan.com | Melbourne, AU

Mar 2025 - Present

- Identified and fixed a \$200k bug that caused 3rd party seller discounts to be paid by Kogan. Coordinated a solution across multiple stakeholder teams: finance, customer care and frontend. Had to update the refund tool in C# (**WPF**) and stored **T-SQL** procedures.
- Automated the entry of invoices into SAP via REST API endpoint to our partners written with **.NET 8**. Sends invoice information to **SQS** which gets polled by another .NET service integrated with the SAP DI API. Original invoice is saved to **DynamoDB** for long term storage.
- Transitioned our AWS microservices and policies to be provisioned using **Terraform** (IaC).
- Enhanced visibility for our CRON time scheduled tasks using **New Relic**.

Technical Engineering Manager | Streamwise D.I. | Melbourne, AU

Dec 2022 - Mar 2024

- Managed the development of a customer support system linked to ClickUp, leading to more customer transparency and faster issue resolution. Built the entire frontend on **React** for web and **React Native** for mobile. Integrated with ClickUp using their **.NET 6** API package.
- Leveraged **Azure IoTEdge** and **Docker** to deliver automated hardware updates. With **IoTHub** layered deployments, I was able to customise rollouts suited to each customer. This reduced the downtime between updates and improved scalability.
- Identified areas that would benefit from an event-driven model. I split off several features into their own **Python** and **.NET Azure Function Apps**. This made our most used functionalities (metrics calculation, report generation, hardware calibrations) more scalable and resilient to traffic surges.

Systems Engineer | Streamwise D.I. | Melbourne, AU

Dec 2019 - Dec 2022

- Redesigned and implemented the backend software architecture responsible for controlling all of the hardware equipment with **.NET 6**. The new design natively supported 4 of the most common hardware communication protocols making customer acquisition cheaper. Implemented design patterns: **mediator, singleton, abstract factory**.
- Developed REST APIs and web hooks to support high volume data querying and manipulation. Used **swagger** to publish this for external use with well defined documentation. Deployed to Azure **App Service** and **API Gateway**
- Established 2-way communication between Azure **App Service** and IoT device through **IoTHub** direct methods opening up more advanced features such as remote hardware calibration and control loop tuning.
- Utilised Azure **Stream Analytics** and **Logic Apps** to create a data processing pipeline linked to **CosmosDB**.

Software Developer | Freelance Project | Remote

2020

Built a custom cosmetic formulation app in macOS using **Python Qt UI** that analyses customer data to select ingredients and their ratios for manufacturing.

Implemented Knuth's Algorithm (recursive, depth-first search w/ backtracking) to find cosmetic ingredients that satisfy customer needs.

Provided post launch update to support Apple M1 chips.

Personal Projects

Twine - app for long distance couples

- Implemented mobile app coded with **Flutter**. Couples can leave daily audio messages and send digital postcards. It also displays partner's mood, timezone, thoughts and countdown timer to their reunion.
- Implemented a **NodeJS** backend to handle file uploads, downloads and database interactions.
- Hosted the app using **Firebase** Auth, Storage, **Firestore** and serverless Functions.

Education

University of Melbourne – Bachelor of Science 2019

Major: Mechatronics Systems GPA 77.4%

University of Melbourne – Diploma in Informatics 2019

GPA 75.1%

Coding Skills

Frontend: **React** (5 years), **HTML/CSS** (5 years), **React Native** (3 years)

Backend: **.NET** (5 years), **Python** (5 years), **NodeJS** (2 years)

Other: **Azure** (5 years), **AWS** (<1year)