

RORY QUINN
Melbourne, Australia
✉ rory@roryq.com
☎ 0468 385 289



PROFILE

Software Engineer from Belfast, Northern Ireland. I love to build, to understand complex systems, and to grow. 10+ years of experience developing software professionally and personally. Looking for the next challenge that builds on past experience.

PROFESSIONAL EXPERIENCE

Momenton

Senior Consultant

April 2020 - now
Melbourne, Australia

New digital banking platform - ANZx Fabric

- Greenfield rebuild of banking technology for ANZ which will become the platform for all of ANZ's future digital products.
- Involved from early design stages of the role based permissions system. Led the implementation through workload breakdown and planning with engineers and business analysts. Built and reviewed iterative improvements through to production readiness.
- Wrote architectural design documents and technical proposals, which were presented to teams within the engineering organisation for socialisation and feedback.
- Provided assistance and training of junior developers to learn technologies used in the project.
- Built open source tools for managing Google Cloud Spanner migrations and local testing.

GetSwift Logistics

Software Engineer

February 2017 - March 2020
Melbourne, Australia

3rd Engineering hire at a "last mile" delivery software start-up

- The core application manages and tracks drivers and deliveries in real time. Written as an ASP.NET web app with AngularJS & React in the front-end, and MSSQL as a data store.
- Transformed the application architecture to handle growth in usage and increased reliability. This involved identifying bottleneck processes in the web application then optimising the code or splitting into separately scalable services, analysing query plans then refactoring queries, tables or indexes when appropriate.
- Built and administered CI/CD processes using Spinnaker that enabled deployments to AWS, Azure and Kubernetes. Contributed fixes back upstream to Spinnaker.
- Analysed client delivery data to generate a predictive model for estimating delivery times. Written in Python and triggered weekly as AWS Lambda functions which scales out processing per store.
- Developed an immutable build for independent Valhalla services per OpenStreetMap data region, which are deployed across Kubernetes clusters in Europe and USA. A proxy service was then written in Golang which uses Consul to find appropriate Valhalla services that can serve routing requests based on the location. This allowed the business to drastically reduce their Google Maps expenses and gave developers resources to develop services that heavily rely on routing data.
- Consult with the development and business analyst teams in Denver and New York on daily calls to provide technical solutions and assistance. Provide async feedback on code via pull request reviews. Work with colleagues in the Melbourne office to whiteboard designs and pair / assist in coding activities.

Thomson Reuters

Senior Software Engineer

September 2012 - December 2016
London, UK

Primary developer on customer facing Tax & Accounting product.

- Responsible for all development and maintenance tasks for a data management desktop application written in C# with a MSSQL Server database back-end. Introduced automated tests using MSTest and tSQLt frameworks to the project for all new functionality.
- Developed data reconciliation tool leveraging MSSQL that uses heuristics to group and associate tax receipts with their original transactions to simplify complex processes introduced by China's "Golden Tax" VAT reform.
- Developed nightly database builds from source control as part of an ongoing process improvement to build a Continuous Integration pipeline using Redgate's DLM tools and Powershell managed by Jenkins.
- Worked with multiple development and BA teams to rebuild desktop product as a service oriented web app on top of an existing HTML5 framework, integrating REST services and re-implementing core product functionality.

Audio Bookmarking Web Application

<https://laterdog.io>

Extracts audio content from web pages and publishes to a personal RSS feed

- Created this so I can listen to conference talks uploaded to YouTube via my podcast app on the go.
- Using Elixir / Phoenix for the webapp backend, React/Typescript in the frontend, and PostgreSQL for the data store.
- To facilitate easy development cycles I setup a continuous integration/deployment pipeline using GitLabCI to deploy the webapp to a single node Kubernetes cluster which also runs metrics and SSL certificate management.

Transport for London & Monzo Bank Integration Service

<https://github.com/RoryQ/mondo-tfl-sync>

This project integrates journey data with Monzo (previously Mondo) bank transaction data.

- Updates transactional data in the Monzo app with TFL journey data, and sends live notifications if there is an incomplete journey pending a refund.
- Wrote a web scraper to retrieve journey data linked to Monzo debit cards from contactless.tfl.gov.uk
- Written in Python, with Flask to handle requests, PostgreSQL for data storage and Redis to broker messages to worker processes.
- Lightweight enough to run on Heroku's hobby tier so other Monzo users can self host the service for free.

Sudoku Solving Web Application

<https://github.com/RoryQ/sudoku-solver/>

The aim of this project was to learn more about web development and computer vision technology.

- Developed a web service in Python using Flask that queues sudoku problems for processing via Celery & Redis and returns solutions using Peter Norvig's constraint propagation solver.
- Studied image manipulation and computer vision concepts to detect and extract data from an image.
- Developed a pipeline to detect and extract the puzzle area from a photo, removing imperfections, isolating digits, then recognising digits using Tesseract OCR engine.
- Wrote a responsive web app using Bootstrap and deployed to Heroku that uploads user images directly to AWS S3 for fast uploading, which is then downloaded and processed for puzzle extraction and solving on the server.

Currency Converter as a Serverless Single Page App

<https://github.com/RoryQ/fx-react>

A static web app that uses no servers to host or maintain fx data source

- Single page app written with TypeScript and SASS using React to respond to client-side changes.
- The daily rates published by the European Central Bank are mirrored on S3 using an AWS Lambda function and parsed in the client application. The data is cached for offline use so it can be used abroad without roaming data.
- Installable as an offline HTML5 web app on mobile devices.

Virtual Membrane Instrument

Final Year University Project

This project involved studying and implementing physical models used in sound synthesis.

- Studied textbooks and papers to understand the processes involved in physical modelling of vibrations in 1d strings and 2d membranes.
- Implemented a Digital Waveguide Extraction model in MATLAB then C++ to determine if performant enough for real time applications.
- Took the opportunity to learn UNIX tools and Source Control to help build and manage my project.