

# JACK W. FINLAY

Experienced software developer specialised in engineering and scaling of web platforms. Always seeking to learn new skills. Able to rapidly pick up and excel in new technology stacks where required.

## Skills

**Programming Languages:** C#, SQL, TypeScript, JavaScript, HTML, CSS

**Frameworks:** .NET 8, .NET Core, .NET Framework, ASP.NET Core, Entity Framework, xUnit, React.js

**Cloud:** Microsoft Azure, App Services, Functions, Service Bus, Storage, Queues, Microsoft/Azure SQL Server

**Tools and Practices:** Git, GitHub, GitHub Actions, Docker, CI/CD, Scrum, Kanban

**Soft Skills:** Leadership, Mentoring, Communication, Teamwork, Initiative, Eliciting feedback

## Experience

**Senior Software Engineer** | La Trobe Financial, Melbourne

*Jan 2025 – Present*

- Developed .NET 8 integrations using Azure Functions and Azure Service Bus to pull loan application documents from a third-party document aggregator into an internal document management system, to allow tracking and storage of complete and in-progress application documentation
- Liaised with third-party vendors to enable integration of their platform into internal systems, reducing misunderstandings, preventing re-work, and driving down and limiting costs of bespoke work required
- Implemented Azure DevOps CI/CD pipelines to enable rapid feedback from automated test suites when a pull request is created or updated, reducing the risk of merging to main and providing confidence in changes

**Senior Software Developer** | Homely Group, Melbourne

*Jun 2021 – Jan 2025*

- Architected and developed greenfield products for the real estate industry using .NET 8 and Azure cloud
- Conceptualised and delivered initiative to implement passwordless authentication and authorisation system to reduce application login friction
- Mentored team members in increasing code quality through code review and pair-programming sessions, greatly lowering the rework on pull requests
- Spearheaded the implementation of Docker Compose solutions, enabling rapid onboarding for new team members by providing local, replicable environments, reducing onboarding time to minutes
- Formulated, lead, and executed initiative to move the organisation to using a version-controlled database migration system to enable tested and peer-reviewed Continuous Delivery of database changes
- Authored CI/CD pipelines, including automated testing, using GitHub Actions, Docker, and Azure Container Registry, leading to an average deployment time of two minutes
- Implemented alerts system to drive daily-digest emails for property listings, leading to an increase in daily active users and an increase in the email click-through rate
- Organised multiple successful Hackathon events for collaboration between the teams within the organisation

**Senior Software Developer** | Tally Group, Melbourne

*Apr 2020 – Jun 2021*

- Architected and built solution in C# and .NET Core for registration and send of webhooks from an event-driven system using Azure Service Bus, Blob and Table storage, and SQL Server to enable third-party integrations and messaging to receive notifications on billing processing status
- Designed and implemented system integration for ETL of battery cycle data using Azure Durable Functions to enable end-users and billing systems to track their electricity import and export from the electrical grid
- Developed payment gateway integrations, allowing for SaaS billing systems to take credit card and direct debit payments for utilities consumers to pay their bills on schedule

**Software Engineer** | Plexure Group, Auckland

*Jan 2019 – Apr 2020*

- Produced and maintained systems used by over 150 million registered users through .NET Core and .NET Framework solutions for personalised offers and loyalty programs
- Conducted platform optimisation projects, cutting the volume of Notification Hub API calls by more than 90%
- Re-engineered platform security to implement JWT authentication and authorisation for systems used by millions of users per day, allowing for improved security for both the platform and users

**Software Developer** | AlphaCert Labs, Auckland*Mar 2018 – Jan 2019*

- Developed full stack C# ASP.NET MVC solutions for investment management software enabling superannuation firm clients to track their investment's value and portfolio of various financial instruments
- Produced multi-step data ETL solutions in C# with Managed Extensibility Framework and RabbitMQ to process data files from various financial clearing houses, importing them into a central SQL Server database
- Implemented version-controlled database migrations for SQL Server Databases using FluentMigrator to enable tested and reviewed changes to be automated via Continuous Delivery

**Analyst Programmer** | Gentrack, Auckland*Aug 2016 – Mar 2018*

- Designed and developed custom features for energy industry clients to augment energy billing software
- Produced T-SQL and PL/SQL database scripts to update system databases, enabling custom features for their installations of energy billing software
- Liaised directly with energy industry clients to illicit requirements and co-ordinate delivery of custom features and billing routines

**Technical Consultant** | Business Mechanix, Auckland*Apr 2015 – Aug 2016*

- Developed ASP.NET MVC website in C#, HTML, CSS, and JavaScript for international students to find study options in New Zealand universities and institutions
- Managed and mentored a group of interns, reviewed and oversaw development of features for an ASP.NET MVC website
- Produced e-Learning modules and activities for the Moodle platform, to aid in the teaching of language courses

**Intern Developer** | University of Auckland IT Services, Auckland*Dec 2014 – Feb 2015*

- Reverse engineered and developed a driver for Scriptella to send data over HTTP, allowing data to be updated on other systems via API calls, reducing the complexity of the data update process
- Implemented various Scriptella, Groovy, and Bash scripts to perform ad-hoc actions such as updating database data, tracking system performance, and configuring local Google search appliances

## Projects

**Submerge** | [github.com/JackWFinlay/Submerge](https://github.com/JackWFinlay/Submerge)*Jul 2021 – Present*

- Developed a C# .NET library for string interpolation, adding flexibility of tokens and greater performance
- Implemented benchmarks using BenchmarkDotNet to compare performance to other popular string interpolation libraries

**EscapeRoute** | [github.com/JackWFinlay/EscapeRoute](https://github.com/JackWFinlay/EscapeRoute) | [nuget.org/packages/EscapeRoute](https://nuget.org/packages/EscapeRoute)*Jan 2018 - Present*

- Designed and developed C# .NET library to clean and escape text in JSON files and snippets
- Implemented Continuous Integration and Continuous Delivery via GitHub actions to deploy new versions to NuGet, reducing development-cycle time and improving test execution coverage

**Jsonize** | [github.com/JackWFinlay/jsonize](https://github.com/JackWFinlay/jsonize) | [nuget.org/packages/Jsonize](https://nuget.org/packages/Jsonize)*Oct 2016 – Present*

- Created a C# .NET library to convert HTML webpages into JSON format
- Leveraged GitHub actions to create Continuous Integration and Continuous Delivery pipelines to deploy new versions to NuGet, improving test execution coverage and reducing the time taken to get changes across to users

## Education

**Bachelor of Computer and Information Science** | Software Development Major

Auckland University of Technology, Auckland, New Zealand

*2013 – 2016*

- Software Development in C# and Java, Object-Oriented Design and Development, Databases, Agile Methodologies, Information security, Data process Modelling, Project Management, Discrete Mathematics and Linear Algebra, Data Structures, and Algorithms