



# TROY CORNWALL

Contracting Software Developer

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## WORK EXPERIENCE

- Contracting Technical Lead

Ministry of Education

November 2020 - Present

Replace the system responsible for allocating Funding and Staffing to all of New Zealand's Schools and Early Childhood Education Providers

The School's System is responsible for allocating ~\$2 Billion NZD and ~45000 teachers every year.

Achievements:

  - Design, build and own the School Domain from creation to release and beyond.
  - Roll out an event sourced Microservice Architecture, using DotNetCore, Postgres, Kubernetes and Marten.
  - Hit our goal of being developed and tested 4 months before the initial release
  - Internal promotion to Tech Lead for Schools, across 5 Teams / 18 developers.
  - CI/CD into over 20 environments.
  - Facilitate 9 major releases into production, and many more smaller releases.

Technologies used:

DotNetCore

Kubernetes

Docker

Marten

ServiceBus

Hangfire

Azure

Azure DevOps

Duende IdentityServer

PostgreSQL

Microsoft SQL

AngularJS

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Contracting Senior Software Engineer

Ospri

November 2019 - October 2020

Designing and building services for Ospri's Animal Traceability software

Achievements:

  - Designing how Single Sign On will work across the existing applications.
  - Implementing lazy user migrations so that users can move seamlessly into the new applications.
  - Updating legacy ASP.NET Forms application with urgent legislation changes.
  - Increasing Developer Security practices.
  - Design and roll out an Event Driven Microservice Architecture, using DotNetCore, Postgres, Kubernetes and Marten.
  - Introduce basic security testing at build time using Owasp ZAP.
  - Automating SSL Certificate renewals using Let's Encrypt and Azure Application Gateway and Azure Api Management.
  - Design, Build and Own the Identity Domain. Doing User Registrations and Account Management.

Technologies used:

DotNetCore

Kubernetes

Docker

PostgreSQL

Marten

Azure

Azure DevOps

Auth0

Microsoft SQL

Owasp ZAP

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Contracting Senior Software Developer

Z Energy

September 2018 - November 2019

Working on a Project team, focusing on integrations for Z's Site Systems.

Achievements:

  - Launched Z Cards on Fastlane in December 2018.
  - Pushed Pumped into Caltex and Z in July 2019, along with a new platform for financial reporting on the loyalty schemes.
  - Delivered Z Biz Cards on Fastlane in September 2019.
  - Shipped Sharetank in September 2019, built on top of Pumped.

Technologies used:

DotNetCore

Mulesoft

Kubernetes

Terraform

Azure

Azure DevOps

Microsoft SQL

Senior Security Developer

Xero

April 2018 - September 2018

Working on the Identity and Access Team. We implemented an OAuth Server, for user authentication, and process to process authentication

Achievements

- Working on the Authorization and Authentication platform for Xero Api's and User Logins.
- Created applications using DotNetCore to sync user logins between the new system and the legacy login.
- Managing infrastructure using Terraform and databases using Flyway.
- Worked with Aura for penetration testing of the solution.
- Contributed to the DotNetCore Caching Library.

Technologies used:

Dotnet

EventStore

AWS

ECS

Terraform

Flyway

Contracting Software Developer

Crombie Lockwood

January 2017 - March 2018

Tech Lead for a Project with Heartland Bank. Quick Quoting Website with deep integrations in their existing CRM.

Delivered a second Project to link the Broker's systems with the Underwriters, to remove manual copying and pasting between emails and systems. Enabled automated quoting and approvals using Corticon as a rules engine

Achievements

- Delivered the Heartland Bank project ahead of schedule.
- Turned a bespoke application into resalable white labeled product.
- First time Broker and Underwriter systems have been linked in NZ.

Technologies used:

DotNetCore

MuleSoft

Angular

React

Corticon

Software Developer

HealthLink

October 2015 - December 2016

Working on the HealthLink Messaging Client, A DevOps Proof Of Concept, and the National Immunization Register

Achievements

- Maintained a Java desktop application, deployed to over 14000 sites.
- Delivered a Continuous Integration and Delivery POC which reduced the deployment time from 120 minutes down to 4 minutes.
- Talked at DevOpsDays Wellington about the human side of DevOps and Change.

Technologies used:

Java

DotNetCore

DotNet4.6

Docker

Rhapsody

Software Developer

Spark Ventures

November 2014 - October 2015

Working mostly on the Morepork product team, with occasional projects for the other Ventures, including BigPipe and Lightbox

Achievements

- Took the Morepork website from an idea to market, using Angular 1 website, JBoss ESB and NodeJS Backend Development.
- Reduced Bigpipe deployments from 1 hour 45 mins to 15 mins, and added Release management and the ability to Rollback.
- Started the Lightbox Data Warehouse project.

Technologies used:

Java

Angular

Jenkins

Puppet

Jboss

NodeJS

CouchDB

AWS

Research Assistant

Active Mobile Security

June 2014 - November 2014

Working for one of the University of Auckland's Start ups, helping test a Role Based Access Control platform for Android phones while going thru a pivoting and trying to exit.

Achievements

- Manual device testing of FireDroid on a mobile device.
- Integration Testing of their Rest API.
- Contributing to the Docker codebase.

Technologies used:

Java

Docker

Jenkins

Android