



# TROY CORNWALL

## Contracting Software Developer

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## WORK EXPERIENCE

### Contracting Senior Software Developer

Ministry of Education

November 2020 - Present

Rebuilding the system responsible for allocating Funding and Staffing to all of New Zealand's Schools and ECEs

#### Achievements:

- Design, build and own the School Domain.
- Roll out an event sourced Microservice Architecture, using DotNetCore, Postgres, Kubernetes and Marten.
- Ran event storming sessions to align domain design with the business team using their language.
- Hit our goal of being developed and tested 4 months before the initial release, allowing time for lots of user testing and enhancements

#### Technologies used:

DotNetCore   Kubernetes   Docker   Marten   ServiceBus   Hangfire   Azure   Azure DevOps   Duende IdentityServer  
PostgreSQL   Microsoft SQL   AngularJS

### 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

### 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:



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:



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:



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:



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

SKILLS & TOOLS

DotNetCore

DotNet Framework

Kubernetes

Docker

PostgreSQL

Microsoft SQL

Azure

AWS

Auth0

IdentityServer4

Duende IdentityServer

EventStore

Marten

ServiceBus

Hangfire

Azure DevOps

Jenkins

Bamboo

Terraform

JavaScript

Angular

React

MuleSoft

Owasp ZAP

Burp Suite

REFERENCES

Winston Muller

Manager of Software development at Ospri  
Email and Phone number available on request

Arnold Krijnen

Head of Development at Z Energy  
Email and Phone number available on request