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Experience

Rokt - CalReply

SURRY HILLS, SYDNEY

Software Engineer

Sept 2018 – Present

- Backend C# .NET Core development across CalReply systems spanning several AWS-hosted microservices
- Front-end development of Calendar web app with Typescript, Angular and NgRx
- Infrastructure automation with Terraform and build orchestration using Jenkins BlueOcean and AWS ECS Tasks defined with Docker containers

Sydney Water Corporation - Digital Platforms

PARRAMATTA, SYDNEY

Junior DevOps Engineer

Mar 2018 – Present

- Greenfield expansion of a Continuous Integration & Continuous Delivery pipeline using Jenkins, Docker, SonarQube and Bitbucket
- Explore containerised application architecture and orchestration via Docker and Rancher

Sydney Water Corporation - Digital Solutions

PARRAMATTA, SYDNEY

Junior Software Developer

Feb 2017 – Mar 2018

- Implemented **Azure** cloud backend and enabled near-real time remote monitoring of sewer overflow and potable water level status on incident response tools servicing over **1 million** customers
- Contributed a **Python** user tool for automating device configuration of over 1500 data points and devices and enabled stream processing for over 100,000 telemetry records daily
- **Native** mobile application development in **Swift (iOS)** and **Java (Android)** for Tankstream experience
- Prototyping APIs and web templates using **Flask**
- Scrum web development and testing of public website applications using **jQuery** and **Javascript**
- Containerised, cross-browser automated testing with Selenium Webdriver (Python) and **Docker**

AdviserLogic Pty Ltd

WYNYARD, SYDNEY

Software Support Consultant

Sept 2014 – Feb 2015

- Achieved over 30 support daily ticket resolutions through support over email and Skype

Education

University of New South Wales

KENSINGTON, SYDNEY

Bachelor of Computer Science

2015 – 2017

- Honours: Distinction (Overall WAM **79.96**), Dean's List (2015-17)
- Electives: **Algorithms and Programming Techniques**, Database Systems, Operating Systems, Computer Networks & Applications

University of New South Wales

KENSINGTON, SYDNEY

Bachelor of Engineering (Chemical)

2011 – 2017

- Honours: Class 1, Dean's List (2011-15)
- Thesis: *Effects of Natural Organic Matter removal and inorganic characteristics on the chlorine decay of waters treated by polyaluminium chloride coagulants*
- Engineering Student Mentor, UNSW Consulting Club member

Scrum.org

Professional Scrum Master I

Jun 2019

Projects

Infrastructure Automation for CalReply Microservices

DevOps pipeline upgrades

Apr – May 2019

- Integrated Terraform CLI execution into Jenkins builds using declarative pipeline syntax and handled scenarios for all plan output situations
- Integrated of database migration tool (Flyway) into pipeline and created wrapper scripts to allow build server to use AWS Secrets Manager and IAM Database Authentication for secure access
- Decomposed of Jenkins build agents into discrete Docker containers to be run by ECS Tasks
- Implemented principle of least privilege on AWS infrastructure by creating dedicated roles to be assumed during deployment tasks and restricting the resource access of their policies

IoT Configuration Parser

Device Configuration using Azure Iot Hub, Blob Storage and CosmosDB SDKs

Oct 2017 – Mar 2018

- Translates CSV command inputs to maintain state on legacy configuration database and reflect this in Azure instance: **IoT Hub, CosmosDB and Blob Storage**
- User-driven tool that handles CRUD operations including Create, Delete, Edit commands
- Object Oriented Design in Python with custom data structures (clients for each SDK, representation of a DB Record) tested using Pytest
- Wrote NodeJS applications and Stored Procedures to schedule interactions with CosmosDB records

Routing Performance

Program for simulating packet routing in Virtual Circuit Networks

Sept – Oct 2017

- Strategy Pattern for interchanging between routing algorithms (Shortest Hop Path, Shortest Distance Path, Least Loaded Path)
- Object Oriented Design in Python and data structures (Graph, Packet classes) tested using Pytest

Tankstream

Interactive experience exploring Sydney heritage sites (Tankstream)

Jun – Sept 2017

- Worked as a team of 3 using Scrum development and Atlassian productivity suite (Confluence/JIRA/Bitbucket)
- Native mobile application development for **iOS (Swift) and Android (Java)**
- Implemented user stories for the detailed experience including timeline traversal and media playback features on iOS
- Implemented user stories for the brief description and map view including marker display and location and Read More toggling on Android

Extracurricular

Roktathon: GitBot

Dec 2018

- Leverages AWS Cloud technology (including lambda, ECS, SNS) in a team with 4 devops engineers to achieve an in-house extension of Bitbucket webhooks
- GitBot allowed git events to trigger arbitrary tools to execute (e.g. Terraform plan output, health check, update libraries) which is returned to developers as Pull Request feedback

Chemical Engineering projects: GradWiki and Chemical Engineering Society Website 2014 – 2016

- Created a Graduate focused wiki resource to retain company knowledge for a network of 50 early career scientists and engineers at Sydney Water
- Self-taught HTML and CSS web development methods to revamp existing society web platform using Bootstrap 3

Technical Skills

Languages: Python (2 years), C# (1 year), Javascript (2 year), Java (1 year), Powershell (1 year)

Web technologies: Flask, TypeScript, ASP.NET Core

Developer tools: Linux, Git, PostgreSQL, Cloud (AWS/Azure), Docker, Terraform

Referees

Referees available upon request