

WINTON NATHAN-ROBERTS

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Portfolio Page

in winton-nathan-roberts

Sydney, NSW

EXPERIENCE

Junior Full Stack Engineer

Metigy

November 2020 – Present

Sydney

- Work closely with engineering, product, customer service and design teams, to deliver high-quality solutions for Metigy customers
- Develop secure APIs with Node.js, AWS Serverless, and MySQL
- Develop front ends according to prescribed UX/UI with React.js
- Utilise Docker pipelines and version control (BitBucket) for DevOps
- Unit Testing, Acceptance and Regression Testing (Cypress, Jest)

Software Engineer and Researcher

Oracle via The University of Sydney

December 2019 – April 2020

Sydney

- Developed an algorithm for parsing plaintext security protocols described in HyperLTL into a monitor of logs for their violation
- Test Driven Development with CI/CD
- Wrote accompanying research paper and presented a seminar
- Stack: Python, PyTest, Git, GitHub

Software Engineer and Researcher

Rio Tinto Centre for Mine Automation

January 2019 – August 2019

Sydney

- Developed a polynomial time train scheduling algorithm for automated ore transport over the Pilbara mine train network.
- Test Driven Development with CI/CD
- Documentation via \LaTeX report writing and Jira
- Stack: Python, PyTest, Git, JIRA, BitBucket, SimPy and Gurobi

PERSONAL PROJECTS

Marvel Site

Stack: React.js Styled Components Bootstrap

Links: Source Demo

NLP Beverage Classifier with React Frontend

Stack: Python (Keras) Tensorflow Node.js React.js

Links: Source Demo

COVID-19 Data Analysis and Modelling

Stack: Python (Pandas, Scipy, Numpy)

Links: Jupyter Notebook Research Paper

Peer-to-Peer Blockchain

Stack: Java Git

Link: Source

BikeRadar: Share Bike Aggregation

Stack: React Native JavaScript Git

Links: iOS App Store Android Play Store

Wild West Zombie Mobile Game

Stack: Unity3D .NET C#

Link: YouTube

SUMMARY

Dependable with strong problem solving, communication and technical skills.

SKILLS

Languages

Java Python JavaScript C/C++
CSS HTML PostgreSQL Bash C#
R Lisp Haskell MySQL PHP Prolog

Specialities

Algorithms Data Structures IT
Data Analysis Machine Learning
OOP Distributed Systems Linux

Frameworks

Node.js React.js React Native Unity
Antlr Pandas Keras Tensorflow

Cloud Technologies

Azure AWS Serverless RDS Firebase

Testing Frameworks

Cypress Storybook PyTest JUnit

DevOps

Docker Git Jira BitBucket

Quantitative Finance

Stochastic Processes Statistics
Linear Modelling Financial Derivatives

EDUCATION

BSc (Computer Science, Financial Maths)

The University of Sydney

Graduated July 2020 | WAM: 83.9

BEng (Mechanical Engineering) (Hons)

The University of Sydney

Graduated July 2020 | WAM: 83.9

REFEREES

Dr Sasha Rubin – Supervisor

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Dr Andrew Hill – Director

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