

# JOSEPH GURR

joseph.gurr@outlook.com

## EDUCATION

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**University of Newcastle, Australia**  
B. Mathematics (Pure Mathematics)

*2014-2019*  
*GPA 6.96/7, WAM 91.39/100*

## WORK EXPERIENCE

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### SwitchDin

SwitchDin is a energy startup that is trying to transform the world's energy grids to be highly distributed and renewable.

#### **Data Services Team Lead (acting)**

*January 2021 - present*

In the absence of a leader for the newly formed Data Services team I stepped up to the challenge and stood in as the temporary team leader. I lead a team of four data science professionals. This role included software development, internal and external stakeholder management, and management of my team members. Some of my responsibilities included providing and managing a performant and cost effective time series database, providing and operating an OLAP site used by our external clients, developing forecasting algorithms and collaborating with other teams on convex optimisation problems, developing market based decision making technologies, and more typical reporting functionality.

#### **Web Services Engineer**

*May 2020 - January 2021*

I was part of a small team building highly performant web and mobile applications using Angular and Ionic. I worked closely with our back-end teams, designers, and external customers to deliver the best product.

### Heffron

Heffron provides administration, education, and other services to assist clients with their SMSFs (Self Managed Superannuation Funds). They are specialists in this field.

#### **Junior Software Engineer**

*November 2018 - November 2019*

An important team member on an ambitious green fields project developing an entirely new micro-service architecture for the back-end using AWS Lambdas with Typescript as the primary language. In addition to being a developer on this project I was responsible for creating a reproducible local development environment using AWS SAM Local. I was also involved in the front-end helping to implement a CMS for the operations team.

#### **Business Analyst**

*November 2017 - November 2018*

Responsible for evaluating the business's use of certain technologies and improving the efficiencies of such use as well as improving reporting flows. Technologies analysed include the Engineering team's proposed technology stack (moving from Symfony/KnockoutJS to Typescript Lambdas/NoSQL/Vue), and on the operations side their use of the DocuSign and Class (think Xero for SMSFs) software packages.

#### **Actuarial Administrator**

*November 2016 - November 2017*

Responsible for assessing the validity of crucial tax calculations for SMSFs. Ultimately responsible for refactoring the calculation algorithm due to legislative changes. This was done in Symfony and KnockoutJS.

## Mathematics Undergraduate Summer Vacation Scholarship *November 2015 - January 2016*

Under the guidance of Associate Professor Michael Coons Jr. I worked to develop a greater understanding of linear representations of  $k$ -regular sequences and Stern's diatomic sequence.

## Private tutoring

*January 2012 - present*

I have extensive experience tutoring year 11, 12, and first year university students in a range of subjects including mathematics, English, physics, chemistry, and statistics.

## TECHNOLOGIES/PROGRAMMING LANGUAGES

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*\* I have worked with this in a professional capacity in a non-trivial way*

**Front-End** HTML\* (plus a variety of HTML templating languages like razor, blade, and jinja2), CSS\* (SASS\*, SCSS\*), Javascript\*/Typescript\* (Angular\*, Ionic\*)

**Back-End** Python\* (Django\*, Flask), NodeJS\*, Java

**Data RDBMS** (Postgres\*, MySQL\*, MariaDB, SQLite), NoSQL (DynamoDB\*, MongoDB), Apache Druid\*, Apache Superset\*, Pandas\*/Numpy\*/other Python data packages\*, R

**Operating Systems** Ubuntu\* (16.04, 18.04\*, 20.04\*), MacOS X, Windows 10

**Other** git\* (GitHub\*, GitLab\*, Bitbucket\*), Docker\*, AWS\*, T<sub>E</sub>X (L<sub>A</sub>T<sub>E</sub>X), Atlassian Suite\* (JIRA\*, Confluence\*)

Other technologies/programming languages I have used in a limited capacity include: Vue, React, LISP, PHP, C, C++, SPSS, MATLAB, Docker Swarm, and Kubernetes

## ACHIEVEMENTS

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Awarded the New Columbo Plan Mobility Scholarship to participate in the Reimagining India program *2018*

Placed on the Faculty of Science Commendation List *2015, 2016, 2018*

Awarded the School of Mathematics and Physical Sciences Vacation Scholarship *2015*

Awarded the Shaping Futures Scholarship *2015*