

John Worrall

Ascot, QLD, Australia / john.a.worrall@gmail.com / <https://johnworrall.com.au>

Mathematical Statistical Modeler

Aspiring Mathematician with research interests in intersecting fields of dynamic systems, computational statistics and machine learning. Currently 1st year student at QUT, covering a range of issues: **variational Bayesian inference, online learning, sequential statistics, stochastic optimisation and probabilistic approximating techniques.**

Experience

Principle Analyst - DTMR. Brisbane, 11/18 - Current

Develop and deploy real time incident reporting application for traffic operators. Infrastructure as code with CI/CD pipelines on AWS platform with scalable backend and flexible frontend. Manage team and lead a piloted cloud project for Department of Transport Main Roads (Python, JS- React/D3/Deck.gl, Postgres-RDS, lambda, S3, Athena) <https://github.com/jaworra/Real-Time-Incident-Reporting>

Senior Analyst - DTMR. Brisbane, 7/18 - 11/18

Deliver quality data analytics via develop models to provide high quality analysis of complex datasets and use a variety of geospatial, analytical and presentation tools. (Python, Alteryx, Tableau, AWS, Postgres)

Analyst - DTMR. Brisbane, 11/17 - 7/18

Modeling and visualization for decision making including road maintenance program. Winner of customer focus KPMG hackathon.(Alteryx, Tableau, Python, Postgres, R) <https://github.com/jaworra/Hackathon-KPMG>

Freelancer – messanalytics.org. Independent, 01/16

Communicate mathematical concepts clearly and concisely, addressing individual student strengths and weaknesses. (10-12 Maths B,C, undergraduate Algebra & Calculus) <https://messanalytics.org/services.html>

Spatial Analyst - DTMR. Brisbane, 1/12 - 11/17

Managing geospatial distributed customizable code, in-depth modeling and presentation on a number of projects. (C#, PyQGIS, ArcPy, Mapbasic, PLSQL, FME, Batch, Powershell, LAStools)

Spatial Scientist - DTMR. Rockhampton, 1/07 - 11/12

Design and develop programs and scripts for automation, completion of graduate program. (Python, C#, Mapbasic, MsAccess, VBA)

Education

PhD Student in Computational Statistics - expected to complete in 2023

Queensland University of Technology

MSc Applied Mathematics

University of Southern Queensland, 2018

BSc Mathematics

University of Southern Queensland, 2016

BSc Spatial Science, Hons

University of Southern Queensland, 2013

Awards

AWS Developer associate certification, KPMG hackathon winner 2018, GISP–AP (Geographic Information Systems Professional – Asia Pacific, President of Young Professional Queensland Regional committee.

Publications

Worrall, John (2012), *Assessing Rockhampton City 2011 Flood Extents and Impacts using Remote Sensing and GIS*, USQ Research 2011. Spatial Science Symposium 2012.

Worrall, John (2018), *An ensemble-ANFIS and a hybrid SOM-ANFIS based model for stock market variable forecasting*, USQ Research 2018.

Worrall, John (2020), *Road incident and traffic monitoring in low latency environment for intelligent decision making*, ITS Asia Pacific Conference 2020, Brisbane, Australia. (Conference canceled, COVID-19)