DENNIS LIU

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Thinker, data scientist, engineer

Hatch Careers
Data Scientist
2020 to present

- Productising predictive models using probabilistic programming languages,

- Working with subject matter experts to craft algorithms that accurately predict role fit,

- Analysis of product performance and product metrics.

Tools

- Python, SQL, Jupyter

- AWS: Lambda, S3, Cloudwatch

- PPL: pyro, STAN, pytorch, and pymc3.

- NLP: nltk, sklearn.

- CI/CD: git, circleCI, pipenv

Education

The University of Adelaide

Ph.D candidate: Mathematics (Statistics)
2017 to 2020

- Utilising Bayesian statistical learning,

- Proficiency in Python and standard quantitative packages (numpy, pandas, sklearn etc.),

- Developing novel models and construct appropriate learning algorithms to infer parameters,

B. Ma. Comp. Sci (Applied)   2011- 2015

B. Eng. (Chemical) with First Class Honours   2009- 2013

Awards & Achievements

Australian winner of the ActInSpace challenge	2020
Invited speaker to WHO Pacific Region COVID-19 Science and Research Seminar	2020
ARC Centre of Excellence for Mathematical and Statistical Frontiers Public Lecture	2019
Data to Decisions CRC Big Data Scholarship	2017
Dean's Merit Certificate for Outstanding Academic Achievement	2009-2012

Publications & Conferences

Estimating temporal variation in transmission of SARS-CoV-2 and physical distancing behaviour in Australia. *The Doherty Institute*	2020
How to flatten the curve of coronavirus, a mathematician explains. *The Conversation*	2020
Elucidating user behaviours in a digital health surveillance system to correct prevalence estimates. *Epidemics*	2020
Predicting influenza testing associated with family doctors by using a web-based surveillance system.	Acceptance pending
Complex Human Data Summer School	2018

Santos Ltd.

Unit Controller Engineer   2015 to 2017

My previous employment required me to work in a remote location in a gas plant control room, where gas production is to be processed all hours of the day.

- Communicate issues with other stakeholders clearly and concisely
- Important commercial and safety decisions are regularly made independently, often employing critical problem solving skills to arrive to a solution

Graduate Facilities Engineer   2014 to 2015

As a facilities engineer, I was responsible for various facility assets producing oil and gas, optimising production. Projects were delivered in a timely and economic manner, with deliverables and risks communicated clearly to key stakeholders for approval.

- Optimisation of gas engines and compressors
- Project management
- Risk assessment

Globe Education Centre

Mathematics and Science Tutor   2009 to 2014

- Tutored students from the ages of 5 to 18 years of age in mathematics and science
- Supervised individuals and large classes

REFEREES

Lewis Mitchell

Organisation:	The University of Adelaide
Position:	Associate Professor
Email:	lewis.mitchell@adelaide.edu.au

Glenn Lydyard

Organisation:	Santos Ltd.
Position:	Manager Operations Technology (Digital)
Email:	glenn.lydyard@santos.com

Sungkook Kwon

Organisation:	Globe Education Centre
Position:	Director
Email:	skkwon@gecaustralia.com