Conor R. O'Neill

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EXPERIENCE

FLIGHT CENTRE TRAVEL GROUP ($20 billion turnover global travel company, ASX100) Brisbane, Australia
Data Scientist, Central Intelligence and Analytics *Mar 2020 – Present*
- Prototyped an NLP tool for analysing and summarising customer feedback through NPS and external review sources.
- This was done in the two weeks between starting back at FCTG and being stood down due to the COVID-19 pandemic. I am currently in this "stood down" position, technically employed but not engaged with the company.

Decoded (World leading technology educator) Asia-Pacific Region
Data Science Facilitator and Mentor *Jun 2019 – Present*
- Working with large businesses in the Asia-Pacific region.
- Presenting workshops to leadership staff on various facets of the digital ecosystem.
- Facilitator and mentor for data academy – a year-long program upskilling clients' staff in the field of data science.
- Created and delivered new content on statistics.
- Consistently receive high ratings in client feedback.
- Operating both in person (FIFO) and remotely from around the region.

conor.ai (My website) International, Worldwide
Freelance Data Scientist *Mar 2019 – Present*
- Freelance data science work with people and companies around the world.

SOOW (Early-stage tech start-up) Brisbane, Australia
Lead Data Scientist *Jul 2018 – Apr 2019*
- Spearheaded flagship customer segmentation project with largest client.
- Coordinated and executed multi-organisation data collation effort to create industry-first high-value dataset.
- Conducted analysis for SOOW Ventures (venture capital arm) to aid opportunity assessment for investment candidates.
- Analytics subject-matter expert – Provided strategic advice for company/C-suite; Developed and vetted new projects, client requirements, and statements of work.
- Ceased employment due to liquidation of the company.

FLIGHT CENTRE TRAVEL GROUP ($20 billion turnover global travel company, ASX100) Brisbane, Australia
Data Scientist, Central Intelligence and Analytics *Feb 2016 – Jul 2018*
- Global Award Winner for Outstanding Achievement (highest honour awarded by company).
- Led project of cross-disciplinary stakeholders and team of 10 to insource specialist 3rd party, producing new product suite for $2M p.a. marketing function.
- Automated full marketing analytics pipeline, including customer behaviour modelling, targeted marketing request processing, campaign reporting and ETL. This reduced expenditure by $600K and 1.5 FTEs annually, increased FCTG's innovative capabilities, and improved marketing transparency, adaptability and KPI oversight.
- Instrumental in online booking fee adjustment that saw a 23% increase in bookings and 8% increase in profit in its first 6 months, providing strategic advice, tools for forecasting impact of changes, idea/impact validation and monitoring.
- Analysed and proposed new impact-optimised strategy for $7.2M p.a. online paid search function.
- Deep-dive statistical analysis on insurance product, identified key drivers/predictors, and projected sales distributions for new insurance product.
- Utilised cutting-edge time-series modelling algorithms to forecast top-line KPIs from store level to overall brand, enabling better oversight and decision making by GMs.
- Orchestrated partnership with university to hire and supervise interns, who delivered new income generating and KPI forecasting proof of concepts.
- Regularly employed typical data science skills/activities across the full pipeline:
  - Business elicitation (problem identification, root-cause analysis, stakeholder engagement);
  - Data extraction (ETL, querying, SSIS);
  - Data cleansing (assumption testing, outliers, transformations, manipulations);
  - Analysis (experimental design, feature engineering, regression, classification, machine learning, statistical testing); and
  - Communication (visualisation, dashboards, reports, workshops, presentations)
  using R, SQL, and Excel for daily drivers, with datasets up to 1Tb and 4B rows in size.

GEMINI OBSERVATORY – NORTH (World leading astronomical observatory) Hilo, Hawai'i, USA
Astrophysicist *May 2015 – Sep 2015*
- Computationally detected, analysed, and derived properties of galaxies in very distant galaxy supercluster, resulting in over 1,200 publication-ready galaxies.

- This work has been published with a leading astrophysics journal.

GEMINI OBSERVATORY – SOUTH (World leading astronomical observatory) La Serena, Chile
AGUSS Research Fellow *Dec 2014 – Feb 2015*
- 1 of 2 undergraduates selected nation-wide for prestigious fellowship.
- Used Python and specialist software to detect, analyse, and create largest & highest quality dataset in existence of Globular Clusters in Coma cluster.
- This work has been published with a leading astrophysics journal.

LAWRENCE BERKELEY NATIONAL LABORATORY (World leading scientific institution) Berkeley, California, USA
Undergraduate Researcher, Cosmology and Astrophysics *Aug 2012 – Feb 2013*
- Developed software to extract and reduce online astrophysical data.
- Evaluated data, assembled list of desired targets for follow-up observation.
- Analysed results using specialist software and classified supernova spectra.
- Multiple discoveries published in The Astronomer's Telegram.

THE UNIVERSITY OF QUEENSLAND (Top 50 University worldwide) Brisbane, Australia
Undergraduate Researcher, Cosmology and Astrophysics *Nov 2011 – Jul 2015*
- OzDES Dark Energy Survey: Chief Redshift Whip – Organised collaboration-wide effort to measure parameter (redshift) in data. Conducted quality control, cleaning of data, and analysis. Created varied strategy models, predicted expected future outcomes. Determined optimum observation strategy, recommended to collaboration. Many published astrophysical journal articles and Astronomer's Telegrams.
- WiggleZ Dark Energy Survey: Queried, extracted, cleaned, analysed, compared, interpreted data on galaxies from multiple astrophysical surveys. Used artificial neural networks to improve upon results of the prediction survey.

EDICATION

EDUCATION

THE UNIVERSITY OF QUEENSLAND (Top 50 University worldwide) Brisbane, Australia
Bachelor of Science with Honours (Extended Major in Physics) *Feb 2011 – Dec 2014*
- Thesis Title: *Cosmological Investigations: Optimising novel observation techniques in OzDES and examining the precision of cosmological probes.*
- Cumulative GPA: 6.33/7.00
- Study Abroad: UNIVERSITY OF CALIFORNIA AT BERKELEY (Top 10 University worldwide)
- Dean's List x4
- University speaking awards x3

FRANKLYN SCHOLAR (Workforce educator) Brisbane, Australia
Diploma of Leadership and Management *Jun 2016 – Dec 2017*
- Workplace sponsored diploma – Sponsored by employer Flight Centre Travel Group

SELECTED LEADERSHIP AND MENTORING ROLES

2017	Emerging Leader Program – Flight Centre Travel Group
	iTrack Mentor – The Smith Family
2016	Advisory Board Member – UQ Young Alumni
	Mentor – Youth Without Borders
2015	Astronomer in Residence at Uluru (public outreach) – CAASTRO
12–15	Teaching Assistant/Tutor to 400+ University students in 20 classes in 5 STEM subjects
2014	Chief Redshift Whip – OzDES (dark energy survey with ~60 members, 5 countries)
	UQ Student Summit Representative
	Delegate – National Student Leadership Forum in Canberra (represented UQ)
2013	Mentor – Faculty of Science
2012	Mentor – Advanced Study Program in Science

SELECTED AWARDS AND RECOGNITIONS

2018	Global Award Winner for Outstanding Achievement (highest honour awarded by company) – Flight Centre Travel Group
2016	Business Transformation Inspiration Award – Flight Centre Travel Group
2014	UQ Future Leader – Class of 2014 (graduating Honours degree)
	Australian Gemini Undergraduate Summer Studentship (AGUSS) – Awarded to two students Australia wide
	UQ Advantage Award
2013	UQ Future Leader – Class of 2013 (graduating Bachelor's degree)
	UQ Excellence in Tutoring award, School of Mathematics and Physics
2012	UC Berkeley Scholarship awarded by D.E.E.W.R (Australian Government Department)

2011   UQ Summer Research Scholarship

PUBLICATIONS

Published   I. Jørgensen, et al. 2019. *The Gemini/HST Galaxy Cluster Project: Environment Effects on the Stellar Populations in The Lynx Clusters at z = 1.27*. ApJ 881:1.

J. P. Madrid, et al. 2018. *A Wide-field Map of Intracluster Globular Clusters in Coma*. ApJ 867:2, 144.

J. Elvin-Poole, et al. 2018. *Dark Energy Survey year 1 results: Galaxy clustering for combined probes*. Phys. Rev. D 98, 042006.

D. Mudd, et al. 2018. *Quasar Accretion Disk Sizes from Continuum Reverberation Mapping from the Dark Energy Survey*. ApJ 862:2.

B. Hoyle, et al. 2018. *Dark Energy Survey Year 1 Results: redshift distributions of the weak-lensing source galaxies*. MNRAS 478:1, 592-610.

M. Gatti, et al. 2018. *Dark Energy Survey Year 1 results: cross-correlation redshifts – methods and systematics characterization*. MNRAS 477:2, 1664-1682.

S. S. Tie, et al. 2017. *A Study of Quasar Selection in the Supernova Fields of the Dark Energy Survey*. AJ 153:3, 107.

C. R. O'Neill, et al. 2016. *Classification of 2 DES supernova with OzDES*. ATEL 9636.

A. King, et al. 2016. *Classification of 8 DES Supernova with OzDES*. ATEL 9570.

C. Bonnett, et al. 2016. *Redshift distributions of galaxies in the Dark Energy Survey Science Verification shear catalogue and implications for weak lensing*. Phys. Rev. D 94:4, 042005.

E. Rozo, et al. 2016. *redMaGiC: selecting luminous red galaxies from the DES Science Verification data*. MNRAS 461:2, 1431-1450.

F. Yuan, et al. 2015. *OzDES multi-fibre spectroscopy for the Dark Energy Survey: first-year operation and results*. MNRAS 452:3, 3047-3063.

K. Kuehn, et al. 2014. *OzDES Spectroscopic Classification of Supernovae From DES*. ATEL 6789.

C. O'Neill, et al. 2013. *Spectroscopic confirmation of supernovae from the La Silla - QUEST survey*. ATEL 4809.

C. Lidman, et al. 2013. *Spectroscopic confirmation of DES12C3a*. ATEL 4725.

COMMUNICATION

- Substantial experience communicating in different formats to technical and non-technical audiences with a range of backgrounds.
- Professional technology educator and communicator for Decoded. This covers full-day technology workshops with leadership staff, and long-form deep dives into data science with their employees.
- Led many stakeholder meetings and business presentations.
- Written communication including technical and project documents.
- The following outlines some quantifiable supporting evidence:
    - Professional technology educator for Decoded
    - Won 3 University speaking awards;
    - 7 astrophysics talks to specialist audiences in 3 countries;
    - 9 talks to the public or non-specialist audiences;
    - 4 astrophysics conferences, retreats, or schools;
    - 9 non-astrophysics conferences, forums, or summits;
    - 400+ University students taught in 20 classes in 5 STEM subjects & was awarded the Excellence in Tutoring award.