

# Jonathan Tan

Data Scientist

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jtsw1990

<https://jonathantansw.com>

Sydney, NSW

## Skills & Stack

Statistical modelling, Pricing, Financial modelling, Data visualisation, Data analytics, Machine learning, MLOps, CICD, Reporting, A/B Testing, Web scraping

Python, R, Excel, Vba, SQL, Snowflake, Databricks, PySpark, Buildkite, AWS, Git, Javascript, NodeJS, Postman, React, NGINX, MongoDB, JIRA, Confluence

## Education

2015-2017 M. Actuarial Science  
Australian National University

2012-2014 B. Accountancy  
Royal Melbourne Institute of Technology

## Awards &

## Certifications

2023 SCOR Iron Viz winner  
2022 nib FACS recognition winner  
2018 Part 2 Actuarial papers  
2017 Part 1 Actuarial CT papers  
2014 Awarded CPA scholarship

## Publications

[2023 SCOR Iron Viz Tableau Submission – Small Changes, Big Impact](#)

[2021 Actuaries digital – Explainable ML: A peek into the black box through SHAP](#)

[2019 Actuaries digital – Version control, because the Recycle Bin doesn't count](#)

[2018 Actuaries digital – Natural Language Processing, text classification](#)

Experienced data scientist and actuary (AIAA) with proven ability to lead and implement end-to-end data driven solutions and products. Skilled with statistical modelling, programming, ML ops and stakeholder management.

## Experience

### Senior Data Lead @ SCOR SE

Jun 2023 – Present

### Manager – Data & Insights @ nib Health Funds

Oct 2022 – Jun 2023

- Lead data taskforce to provide analytics and reporting to assist frontline teams in resolving more than 5,000 GICOP claims breaches over 3 months
- Developed company-wide data science competency through “Analytics & Insights” Workplace page and “Kernel Academy” – a machine learning knowledge sharing group
- Managed and mentored a team of 4 junior analysts to deliver data products across bordereaux reporting, customer and claims analytics, operational analytics

### Data Science Lead @ thecanary.xyz

May 2022 – Oct 2022

- Managed a data team of 4 and implemented development process for MVP build for cryptocurrency start up
- Designed and built backend ETL architecture and analytics API from multiple source systems using FastAPI/EC2/Postgres/Python

### Senior Data Scientist @ nib Health Funds

May 2021 – Oct 2022

- Developed and implemented COVID pricing strategy through Delta and Omicron waves resulting in a 40% improvement to portfolio performance
- Lead development in end-to-end inhouse technical travel insurance pricing models
- Delivered commercial models and financial projections for multiple RFPs totalling an estimated \$80m GWP
- Developed data science strategy and architecture for actuarial team

### Pricing Engine Lead @ IAG Ltd

February 2021 – May 2021

- Lead development and launch of niche portfolio (Caravan, Trailer, Strata) worth \$50m GWP
- Sprint planning and resource allocation for a development team of 4 under AGILE framework

### Pricing Analyst @ IAG Ltd

May 2020 – February 2021

- Built pipeline to optimize rate setting process by 60% using Python/R scripting
- Collaborated with business API team to develop ingestion schema for conversion between flat and JSON data
- Owned deployment workflow and integration testing for Home/Motor pricing algorithms using Postman and R

### Actuarial Analyst @ nib Health Funds

July 2018 – May 2020

- Developed earnings model with MLE and goodness of fit tests using Scipy/statsmodels
- Built and implemented travel alerts and embargo decision chatbot using Slack RTM API
- Developed and maintained recurring ETL processes in SQL Server/ Snowflake/ Python for reporting requirements
- Modelled and launched new rating factor for direct brand worth \$120m GWP annually and improved portfolio performance by 10%

## Other interests/ projects

2022 Developing an NFT project with an open-source team

2022 Full stack [insurance pricing engine](#) built from scratch in Python/Flask/Nodejs/React

2021 Text analytics consulting project for marketing firm

2019 Grab AI Challenge: Safety with telematics