# **Chamal Gomes**

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# **Career Objective**

A persevering, sedulous and tenacious actuarial graduate who enjoys solving real-world problems. Much focused on applying actuarial modelling skills in conjunction with Deep-learning, across a wide range of fields and is keen on developing a blend of technical skills and excellent business acumen.

### **Education**

## University of Melbourne

Bachelor of Commerce (Actuarial Science) 2015 - 2017

#### University of Melbourne

Master of Commerce (Actuarial Science)(Research Pathway) 2018 - 2019

#### Deeplearning.ai

Deep-Learning Specialisation2018Reinforcement-Learning Specialisation2018

# **Key Skills**

- Proficient Machine Learning, Deep-Learning and Reinforcement Learning with Python.
- Experienced in object oriented programming (Python/R/JS)
- JIRA configuration and management for reporting.
- Tableau/PBI for data visualization and reporting.
- Strong Agile skills for project management.
- VBA for Microsoft suite application automation.
- o Deep-Learning Frameworks: Tensorflow, Keras
- Reinforcement-Learning Frameworks: OpenAI
- Cloud instance configuration and management
- o SQL database management and ER modelling
- SAS for data modelling and processing.
- Experience with Linux server management.

# Experience

#### LILabs Australia - Business Analyst

2019 Jun - Present

- Business planning and Scrum board management.
- o Project stakeholder management and communication.
- Client requirement collation and product management.

#### Unimelb Machine Learning Student Association - Tutor 🖪 👺

2019 Jun - Present

- o Conducting weekly machine learning workshops for machine learning association students.
- Guiding teams for competing in data science competitions.

#### NMG Consulting - Modeling Analyst

2019 Feb - 2019 Apr

- o Developed deep-learning models for a client of NMG Consulting for fraud detection.
- Bench-marked industry-leading models against Deep-learning models.
- o Presented key findings and final report to the client upon completion of the study.

#### NMG Consulting - Actuarial Intern

2018 Nov - 2019 Feb

- o VBA automation of RBC calculation and industry benchmarking.
- o R/R Shiny project engagement and development for industry insights.
- General insurance solvency and liability valuation.

#### **Masters Research**

o Obtained First Class Honors for maters research report, awaiting journal publication. 🔼

- o Research encompassed the use of Gaussian Restricted Boltzmann Machine (RBM) and Deep-Autoencoders for unsupervised fraud detection.
- o Introduced a New Unsupervised Variable Importance sampling methodology with Deep-Autoencoders.

# **Project Experience**

#### 2019 Melbourne Datathon Data2App Comp(Ongoing) • Developing a full scale React.js web application for sugar crop analysis. o Deep-learning with hyper-spectral satellite images for crop yield prediction. EVI/NDVI and weather forecasting with ML models 2019 MLSA Chatbot Development(Ongoing) o Developing NLP powered Chatbot for Machine learning Association of UniMelb projects. Integrating Chatbot with Slack for better UX. **Kaggle IEEE Fraud Detection** 2019 o Feature engineering and selection using SVAE's. Modelling approach encompass Gradient Boosted Random Forests. 2019 **Kaggle Generative Image Generation** Use of Deep Convolutional Generative Adversarial Networks (GANs) for image generation Parallel GPU configuration for training the model on GCP 2019 Kaggle Recursion Cellular Image Classification Variational Autoencoders is being investigated as the starting point Kaggle LANL Earthquake Detection Competition 2019 Use of Neural ODE along with RNN(LSTM) methodologies for time series prediction. **Kaggle Quora Insincere Question classification Competition** 2019 Use of Bidirectional RNN for enhanced NLP modelling. EY Next Wave Data Science Competition 2019 • Used telematics data for devices such as cellphone to predict future location o Based on the predicted location, classified whether or not the device is in the city zone 2018 SOA (Society of Actuaries) Case Study Challenge o Assessed the sustainability of the long-term care system of a hypothetical country and provide recommendations

- Assessed the sustainability of the long-term care system of a hypothetical country and provide recommendations on continued viability
- Provided actuarial modelling to estimate the inflows and outflows of the long-term care system, considering factors such as improving mortality, care levels transitions, economic trends, caregiver shortage etc.

## UBS Investment Banking Challenge 🔼

2018

- Advised TABCORP on the merits of the potential acquisition of Tatts.
- Recommended acquisition price using different valuation methods.
- o Provided suggestions on the dealings with regulators such as ACCC, ACT (Australian Competition Tribunal) while staying in line with the regulations.