Chamal Gomes

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Career Objective

An enthusiastic and energetic actuarial student who enjoys solving real world problems. I am focused on becoming a fully qualified actuary and am keen to deploy my excellent business acumen in a successful actuarial career specializing in advanced deep learning and predictive analytics.

Higher Education

Master of Commerce|2018—expected July 2019
University of Melbourne
Major: Actuarial Science Research
Deeplearning.ai|2019
5-course deep learning specialization
Bachelor of Commerce|2015—2017
University of Melbourne
Major: Actuarial Science

Awards
University of Melbourne Commerce Global Scholarship 2015
University of Melbourne USA travel Scholarship 2017
Institute of Actuaries Australia
Exemptions for CT1, CT2, CT3, CT5, CT7

Skills

- Proficient Machine Learning and Deep Learning skills for data science applications
- Reinforcement learning skills required at advanced model automation
- Strong coding ability both in producing clean and efficient code as well as debugging and understanding large code bases
- Experience in General Insurance Actuarial liability valuation and RBC assessment.
- R-Shiny for enhanced client presentations
- Python, NumPy, Pandas, Sklearn.
- TensorFlow Deep learning framework
- R for Machine Learning and statistical analysis
- VBA for Automation of Microsoft suite applications
- SQL database management and information modelling skills
- Unix Shell scripting for Unix task automation
- Experienced use of modern source control (Git)
- HTML for web development
- PowerBI for visualization

Work Experience

INDEPENDENT CONTRACTOR FOR DEEP LEARNING MODEL DEVELOPMENT (FEB 2019 – PRESENT)

- Developing deep-learning models for a European client of NMG Consulting for fraud detection.
- Programming of all the python modules for each deep learning model and supervised models.
- Preparation of the full project report to be presented to the client.
- Presenting the findings to the client upon completion of the project.

NMG CONSULTING (DEC 2018 – FEB 2019) – Actuarial Intern

- Performed VBA automation of RBC calculation, valuation and Industry benchmarking.
- Engaged in several R-Shiny projects for enhanced industry client presentations.
- Assisted actuarial analysts with valuation and solvency calculation for general insurance clients.

Master's Research Thesis

Application of Autoencoders And Boltzman Machines for Insurance Claims Fraud Detection

- Determining the optimal architecture and algorithm for fraud detection
- Comparison of other supervised learning methodologies against the performance of Autoencoders and Boltzman machines in fraud detection.

Projects

Kaggle Microsoft Malware Detection Competition

- Considering stacked RBM for better performance in an autoencoder architecture.

Kaggle LANL Earthquake Detection Competition (Ongoing)

- Use of Neural ODE along with RNN methodologies for time series prediction.

Kaggle Quora Insincere Question classification Competition (Ongoing)

- Use of Bidirectional RNN for enhanced NLP modelling.

SOA (Society of Actuaries) case study challenge (2018) (link)

- Provided actuarial modelling to estimate the inflows and outflows of the long-term care system, taking into account improving mortality, care levels transitions, economic trends, caregiver shortage etc.

UBS Investment Banking Challenge (2018) (link)

- Advised TABCORP on the merits of the potential acquisition of Tatts.
- Recommended acquisition price using different valuation methods.

Bachelor final year project (2017)

- Provide recommendations to maintain the financing of the superannuation funds, for both defined benefits and accumulation plan.