

HISHO RAJANATHAN

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TECHNICAL SKILLS

- **Languages:** SAS, Python, R, SQL, VBA, MATLAB
- **Software:** Microsoft Excel, Word, PowerPoint, Access, Microsoft TFS, Tableau, Spotfire, JIRA, MapGIS
- **Technologies:** Spark, Google Cloud
- **GITHUB :** <https://github.com/hishok>

EDUCATION & QUALIFICATIONS

MSc Data Science, City University of London

Sep 2019 - Sep 2020

- Modules include Machine Learning, Visual Analytics, Data Visualisation, Deep Learning Optimisation, Neural Networks

Institute and Faculty of Actuaries (Self-Funded)

Nov 2017 – Sep 2019

- Passed: CT1, CT2, CT3, CT5, CT7 and CB3

BSc. (Hons) Actuarial Science, Cass Business School

Sep 2011 – Jun 2015

- Dissertation – “Flood RE – Reinsuring UK’s Biggest Catastrophe Risk”
- Modules included: Statistical Modelling, Stochastic Modelling, Calculus and Linear Algebra and Financial Economics

Queen Elizabeth’s Boys School, Barnet

Sep 2004- Jun 2011

- A Level – Mathematics (A*), Physics (A), Chemistry (A), AS Level - Further Mathematics (A), Geography(A)

WORK EXPERIENCE

The MDU – Actuarial Assistant

Nov 2018 – Aug 2019

- Creating standardised SAS code for team members to extract data from the SAS servers efficiently whilst avoiding errors in data manipulation
- Using big data sets to identify profitable areas of business and presenting this to senior management

Vitality Life – Reinsurance Analyst

Dec 2016 – Nov 2018

- Created a project on increasing direct sales using behavioural economics - this was then presented in the Actuarial Conference in South Africa
- Liaising and maintaining relationships with reinsurers and answering ad hoc queries on reinsurance data
- Producing monthly reinsurance accounts and managing the development, documentation and maintenance of system developments on the reinsurance systems
- Improved and streamlined the reinsurance reporting process by using R, which gets sent to reinsurers on a monthly basis
- Created a new reinsurance premium calculator in R which is used to check the system accuracy

Admiral Group – Household Pricing Analyst

Nov 2015 – Dec 2016

- Implemented a new price tracker to analyse market trends and to identify if rate changes were successfully administered; subsequently used by all pricing departments
- Analysing variables and pricing factors to be introduced in cross products using SAS to effectively determine rate changes
- Using external data sources to introduce a new rating structure for different perils; subsequently used by the motor pricing department

CCR Insurance Brokers LTD - Insurance Adviser

Aug 2015 – Nov 2015

- Advising clients regarding their insurance needs and liaising with underwriters to process insurance policies effectively

Westhill Service Station, Putney – Assistant Manager

Nov 2010 – Nov 2015

- Promoted to Assistant Manager in June 2015, previously worked as a Customer Service Assistant

PROJECTS

Tiny Data Science Project – “Impact of news headlines on global stock indices”

- News headlines were collected using The Guardian API using Python
- Sentiment analysis was performed on general news headlines to investigate the impact of headlines on FTSE100
- Machine learning models were applied to create a basic trading algorithm

Visual Analytics Project - “UK Road Traffic Accident Analysis Study”

- Visual analytic approach to investigate UK Road Traffic Accidents using K-means and DBSCAN in Python

Machine Learning Project - “Investigating Absenteeism at Work”

- Comparing Multiple Linear Regression and Random Forest Regression using the Absenteeism at Work dataset
- Used MATLAB to identify the best machine learning model to predict number of hours of absenteeism at work

Reinforcement Learning Project - “Deep Learning: Optimisation”

- Comparing different deep learning techniques to solve the Mountain Car Open AI Gym environment using Python

Computer Vision Project - “Facial Recognition”

- Creating a facial recognition algorithm to identify and label individuals in a class photo
- Used MATLAB for image pre-processing and creating final algorithm
- Creative mode algorithm was implemented where a face mask was superimposed on the individuals face

Neural Network Project - “Predicting and Forecasting A Global Stock Index: LSTM vs NARX”

- Comparing LSTM and NARX to accurately predict the S&P 500 index
- Used MATLAB to identify best model by conducting hyperparameter optimisation on both models

Dissertation - “Using Deep Learning for Object Detection in Real Time for Self-Driving Cars”