Martin Ngoh

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SKILLS

Languages: English (Native), Spanish (Fluent)
Programming Languages: Python, R, PySpark, Spark, SQL, HTML, JavaScript, CSS, Linux, GIT
Data Science: RStudio, Jupyter Notebook, Spyder, TensorFlow, PyTorch, Keras, NLP, Tableau, Healthcare Analytics Databricks, Azure, Machine Learning, Artificial Intelligence, Deep Learning, Data Cleaning, Data Engineering, Visualizations (Matplotlib, Seaborn, ggplot2)

WORK EXPERIENCE

Deloitte Consulting LLP **Arlington, VA**
Data Scientist – Consultant June 2023 – Current
Centers for Medicare and Medicaid (CMS) – Risk Adjustment Data Validation (RADV)

- Promoted to consultant within 2 years for exceptional performance as recognized by project and client leadership.
- Co-led the development and automation of machine learning models including, Elastic Net regression (ENET), feed forward/recurrent neural networks (RNNs), and XGBoost, to aid in CMS's recovery of ~$479 million annually
- Developed a Python class to apply propensity weighting to time-based samples, resulting in a 10% increase in the model's ranking ability
- Independently created a novel clustering algorithm that generated 4 distinct clusters of enrollees using the K-prototypes algorithm (a mixture of K-means and K-modes) providing the client with a clear view into the model ranking process
- Led team onboarding through knowledge sharing sessions, ensuring smooth transitions and fostering team cohesion

Data Scientist – Analyst October 2021 – June 2023
Centers for Medicare and Medicaid (CMS) – Risk Adjustment Data Validation (RADV)

- Engineered a Recurrent Neural Network from scratch with another colleague to predict an enrollee's expected diagnosis code with an error rate of 20% using datasets of 20 million observations
- Identified an opportunity to automate a manual process by developing a script to launch jobs using Linux, reducing turnaround time from 3 days to 2 hours. Led a successful presentation and provided training to 20 team members.
- Decreased model processing times by 50% after successfully converting model code from SAS to PySpark
- Created a Python-based modeling tool to combat model drift, by measuring the variance in model performance and providing a Tableau dashboard as a visual aid

RELEVANT PROJECTS

Personal Portfolio Website – martinngoh.com

- Independently built a personal portfolio website after self-teaching HTML, CSS, and JavaScript within 2 months.
- Ensured responsiveness across different devices and regularly updated with new projects and skills

Financial Customer Segmentation

- Collaborated with a financial services firm to develop 5 high-value customer segments through K-means analysis
- Produced a 20-page report recommending 10 financial products for each segment that would yield the highest financial return

Soccer Player Prediction Model

- Scrapped web data and generated multiple AI models focused on predicting goals scored by players across Europe's top 5 leagues. The analysis would aid in the acquisition of the top players, costing up to $200 million
- Presented comprehensive reports and business outcomes to a panel of 10 AI leaders at Deloitte, leading to recognition as the standout performer among 50 practitioners

EDUCATION

Georgetown University McDonough School of Business
Master of Science: Business Analytics, *Men's Soccer Team*

Virginia Commonwealth University School of Business
Bachelor of Science: Supply Chain Management & Analytics, *Men's Soccer Team*