Soon Yung Low

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EDUCATION

MSc Applied Social Data Science (Distinction) September 2020 - July 2021

London School of Economics and Political Science, UK

- Dissertation: "Ethnic Stereotypes in Malaysia: A quantitative measure based on word embeddings"
- LSE SEAC Southeast Asia Student Dissertation Fieldwork Grant Awardee
- Modules: Machine Learning, Quantitative Text Analysis, Distributed Computing
- Data Science Society Project Developer for "Sentiment Analysis of S&P 500 Financial News"

B.A. Economics September 2017 - July 2020

Feng Chia University, Taiwan

- Dissertation: "Sentiment Index of China's Stock Market and its Causal Effect on Stock Indices"
- Professor and Chair Yao-Hsien Chien Memorial Scholarship Holder
- GPA: 4.0/4.0; Ranking: 1st/109
- Modules: Statistics, Python Programming, Data Science using R, Econometrics, Empirical Methods

WORK EXPERIENCE

Model Risk Data Scientist March 2023 - Present

NatWest Group, UK

Data Scientist August 2021 - February 2023

Amplifi Capital, UK

- Owned decision engines for loan and saving applications, designing and implementing decision rules for new products
- Built NPV model in Python that works along with machine learning model to find the optimal APR for loans
- Conducted analyses for machine learning model, such as identifying temporally stable features for customer clustering
- Documented changes in the decisioning process on Confluence and communicated dependencies to other teams
- Built a rejection funnel that shows the breakdown of declines by each decision rule to improve lending decision-making

Data Science Research Assistant July - October 2021

LSE Department of Government, UK

- Built a dataset of Italian legislative speeches of the Italian Chamber of Deputies from 1941 to 2018
- Scrapped, digitalized and preprocessed more than 5 million speeches from online archive
- Collected external metadata for speeches including politicians, parties, and national elections

Visiting Researcher for Data Study Group June - July 2021

The Alan Turing Institute, UK

- Evaluated the impact of sugar tax on purchases of sugary drinks in collaboration with Sainsbury's (report url: here)
- Applied time series clustering technique to assess the levy effect on different customers
- Identified consumption patterns by conducting EDA on transaction data and customer demographics data

Machine Learning Intern July - August 2020

FCU Artificial Intelligence Research Centre, Taiwan

- Collaborated with a carmaker to develop a targeted marketing strategy for 1,274,284 car owners
- Predicted the repurchasing rate of existing car owners using an XGBoost model
- Extracted features from maintenance data for time-series forecasting using sliding windows
- Conducted EDA on transaction data, maintenance records, and customer complaint data

Research Assistant for Dr Tsung-Chih Lai September 2018 - June 2020

FCU Department of Economics, Taiwan

- Conducted literature review on quantitative methods for studying inter-generational mobility

RESEARCH EXPERIENCE

" 'Wanita' in Parliaments: The attitude of Malaysian MPs towards women" 2021

- Scraped 30 years of Malaysian parliamentary speeches (1990 to 2020) from the official portal
- Analysed temporal changes in the usage of gender labels in terms of frequencies and semantic meaning
- Quantified stereotypes against females in personal traits and occupations using word embeddings

"Public Opinion towards Malaysia's Budget 2021" 2021

- Scraped 30,387 tweets and pre-processed text data for visualizations such as word clouds
- Analysed the sentiment of tweets using VADER dictionary and conducted topic modelling using LDA
- Developed an interactive dashboard using Plotly and Dash for general audience (link here)

"Sentiment Index of China's Stock Market and its Causal Effect on Stock Indices" 2019

- Collected 489,870 posts from a Chinese stock forum for sentiment analysis
- Built a training set based on labelled high-frequency words in terms of TF-IDF
- Constructed a daily sentiment index of China's stock market based on results of sentiment analysis
- Identified a causal relationship between the sentiment index and stock indices with high trading rate
- Methods used: Naive Bayes, Empirical Mode Decomposition and Difference in Differences

SKILLS

Programming Python, R, SQL

- Python - pandas, Seaborn, NLTK, scikit-learn, statsmodels, jieba, SnowNLP
- R - dplyr, glmnet, ggplot2, quanteda

Other Tools Microsoft Power BI, Git, Jira, Confluence

Languages English (Advanced), Chinese (Native), Cantonese (Advanced), Malay (Advanced), French (Basic)