Bill Pung Tuck Weng

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PROFESSIONAL EXPERIENCE

Data Scientist, DBS Bank Ltd, Singapore   Sep 2020 – Present

- Developed and deployed predictive models using machine learning algorithms (e.g. XGBoost, random forest) on a variety of use cases: classifying customers by investment propensity, predicting customer inactivity and churn by modelling future account closures, account balances, and investment transactions.
- Led scoping, development and deployment in team of 10 data scientists across Singapore and India to build a PySpark-based machine learning system *Client Connect*, powering analytics in over 75 use cases to support relationship managers' engagement of high-net-worth clients. Established code quality via SOLID principles, SQL query optimisation, Git/Jira workflow, and unit testing; improved runtime of existing codebase by 8 times.
- Developed data pipelines for cleaning & categorising account transactions for 5 million customers, using fuzzy text-matching & regular expressions with PySpark, contributing to data mart used in downstream applications
- Winner of DBS Datathon 2021: Developed a graph analytics package for data scientists to model social network influence using the label propagation algorithm on peer-to-peer transactions.

Artificial Intelligence Researcher, Alibaba Group, Singapore   Jan 2019 – Aug 2020
Conducted Natural Language Processing (NLP) and Deep Learning research for Alibaba-NTU Joint-Research Institute.

- Designed latent tree induction module for Transformer & LSTM models, achieving 30-40% faster tree encoding across seven NLP tasks (incl. language modelling), surpassing state-of-the-art accuracy by 4-8%.
- Proposed a novel dataset to highlight failure of state-of-the-art Transformer & LSTM models in systematic generalisation of multi-hierarchical relational reasoning, an important task in natural language understanding.
- Top 8 Finalist in the Singapore-India Hackathon 2019: Led team of six Indians and Singaporeans to build a neural network and data reporting platform for epidemiology prediction; presented to Indian Ministers in Chennai.

CEO & Co-Founder, Cokun, Singapore (Demo: tinyurl.com/cokun-demo)   Mar 2018 – Dec 2018
Launched a Sleep-as-a-Service start-up providing a sleeping pod on demand, in collaboration with NTU.

- Featured and interviewed in national media: The Straits Times, Business Insider, New Paper, Capital 95.8 FM.
- Served over 400 NTU students and staff, with 95% of users reporting interest to use service again.
- Awarded $15k funding from business pitches to boards of directors from NTUitive & Garage@EEE Accelerator.

Software Engineering Intern, JPMorgan Chase & Co., Singapore   May 2018 – Jul 2018

- Collaborated with engineers from UK and India through daily Scrum stand-ups. Implemented new features in firm's global platform with Angular, and merged features into codebase with Git after successful code reviews.
- 1st Place in Singapore & 2nd Runner-Up in APAC for JPMorgan Global Hackathon 2018: Prototyped a voice-based authentication and chatbot system, obtaining buy-in from APAC leaders to embark on development.

EDUCATION

Master of Science in Computer Science, Georgia Institute of Technology   Aug 2021 – Present
Pursuing part-time Masters in Computer Science, specialising in Machine Learning.

Master of Science in Technology Management, Nanyang Technological University   Aug 2014 – Dec 2018
Bachelor of Engineering Science in Mechanical Engineering, Nanyang Technological University
Renaissance Engineering Programme: Dual-degree programme, with full-ride Nanyang Scholarship.

- GPA: 4.58/5.00, First Class Honours. Graduated with a Minor in Entrepreneurship.
- President of International Consulting Network, Co-Chairman of NTU Toastmasters, NTU Taekwondo athlete.

SKILLS

Data: PyData (Pandas, Scikit-learn, Matplotlib), Deep Learning (PyTorch, Tensorflow, Keras), NLP, Statistical Modelling.
Technical: Python, Spark, SQL , Git, Jira, CI/CD, Airflow, MLFlow, Unix, Java, C.
Professional: Business Administration (MBA from Quantic School of Business), Public Speaking (Toastmasters CC, CL).