Bee Hwa, Siew

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Summary

A Masters in Computer Science graduate, certified Data Scientist with a diverse project portfolio and experienced IT Project Manager in Banking Payments system over 10 years. A problem solver, highly motivated, resourceful and independent with a flair of task prioritization plus critical time-management skills. Possess excellent communication skills especially in bridging understanding between technical and non-technical stakeholders.

Education

- **University Science of Malaysia** — Penang, MY
  Master of Science in Computer Science — *Graduated in 2009*

- **University Putra of Malaysia** — Selangor, MY
  Bachelor of Computer Science (Multimedia) — *Graduated in 2005*

Professional Certification

- **MITx 18.6501x: Fundamentals of Statistics**: 2022
- **MITx 6.86x: Machine Learning with Python-From Linear Models to Deep Learning**: 2022
- **MITx 6.00.1x: Introduction to Computer Science and Programming Using Python**: 2022
- **MITx 6.431x: Probability - The Science of Uncertainty and Data**: 2022
- **Data Scientist Professional (DataCamp)**: 2021
- **AI Singapore: AI for Industry (Foundations in AI)**: 2021
- **Project Management Professional (PMP)**: 2019

Data Science Projects Portfolio

- **Ocean energy efficiency data challenge**: using Scotland's energy performance data, I generate rankings and top 5 lists, discover correlations between building features and energy performances, build algorithms to predict energy cost and recommend building modifications for energy cost savings.

- **Major incidents analysis in UK year 2020**: Using Plotly, I identified the most important factors for major incidents and plot incident hotspots using a combination of address retrieval via Geopy and geospatial plotting via Geopandas.

- **Used cars pricing prediction**: Using Linear Regression modeling, hyperparameter-tuning and R2 scoring, I predicted used cars pricing with a best R2 score of 0.9538 and over 90% predictions that meet the pricing baseline.

- **Bankruptcy Risk Prediction with Taiwan Economic Journal (TEJ) Data**: Using EDA, hypothesis testing and classification modeling, I achieved a best result of only 7 False Negatives in the bankruptcy prediction model.

- **Misogynist classification on Urban Dictionary content**: Using NLP techniques and classification modeling, I classified misogynistic and non-misogynistic texts on Urban Dictionary data with a best score of 0.87.

- **Singapore Taxi availability prediction**: Using GeoJSON, Regression modeling and RMSE evaluation on results, I predicted taxi availability across different times and regions, with a 9-15% deviation from actual results.

- **ICU mortality rate classification using APACHE IV data**: Prediction on ICU patients mortality rate with classification model (DecisionTreeClassifier) with a ROC-AUC scoring of 0.519.

- **Lending Club Loan Data Analysis**: With the goal to maximize profit while minimize potential losses, I analyzed loan data with EDA and proposed an investment portfolio for moderate risk investors that generates 9-13% returns and repayment improvement from 83.9% to 86.8%.

- **Wine Promotion Analysis for Russia drinks company**: Using Unsupervised Learning methods with Silhouette Scores metrics, I identified and proposed 10 other Russian regions for a wine promotion campaign using the previous successful promotion in Saint Petersburg as a baseline.

Skills

- **Programming Languages**: : Python, SQL, AS400 RPGLE, Java, HTML
- **Data Science Skills & Packages**: : Pandas, NumPy, Scikit-Learn, Statistical Analysis, Hypothesis Testing, Data mining, Data Visualization (EDA), Data Analytics, Geospatial visualization (Geopandas, Geopy), Natural Language Processing (NLP), Web scraping, Machine Learning modeling (Linear Regression, Classification, Clustering, Unsupervised Learning).
- **Others**: : Project management, Software Development Lifecycle (SDLC), Change management, Vendor management, Business analysis.

Work Experience

- **Sumitomo Mitsui Bank Corporation**   Singapore
  Assistant Vice President, IT Steering Group (ISG)   *July 2016 - Aug 2019*
    - **Contributions**: Lead, manage a team of 10-15 vendors and 20-30 business users in strategic and regulatory regional payments project management: Sydney BPAY, Manila Metrobank Collection, Seoul Swift Auto Repair, Manila TEMS enhancement 2019.
    - **Other responsibilities**: change management and business analysis for system enhancements & production support for regional Payment systems in Manila, Sydney and Seoul.

- **United Overseas Bank**   Singapore
  IT Manager   *Oct 2011 - June 2016*
    - **Contributions**: Bulk payment team (ROS) project lead, coordinator for 2 contractors and 5-10 business users in strategic and regulatory project management: FAST (G3) Project Phase 1 - Phase 2, Regional BIB plus project.
    - **Other responsibilities**: Perform business analysis, system enhancements and production support for bulk payment, cheque, direct debit and remittance processing back-end system.

- **Overseas Chinese Bank Corporation**   Kuala Lumpur, MY
  IT Manager   *July 2009 - Sept 2011*
    - **Contributions**: Project lead and business analyst for IBG and Giro Plus system.
    - **Other responsibilities**: System enhancement and production support for payments system.

- **HSBC**   Kuala Lumpur, MY
  IT Project Officer   *Oct 2006 - June 2008*
    - **Contributions**: Programmer for systems: Interest Bearing Scheme (DIBS), Cheque Truncation system (CTCS), Islamic Subsidiary.

- **Scope International**   Kuala Lumpur, MY
  Programmer   *Oct 2005 - June 2006*
    - **Contributions**: Programmer for Standard Chartered MY e-Statement project.