GARY FOO

DETAILS

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LINKEDIN
https://www.linkedin.com/in/garyfoohw/

SKILLS

Data Analytics | Data Science

Machine Learning | SQL

Data Preparation

Statistical Analysis

Python | JavaScript | PHP

Node.js | React

PROFILE

4+ years of building data-driven decision making models in various aspects of the aviation business including optimization of activities across stakeholders, deployment of manpower, and customer management. Worked on data-mining, database querying, pre-processing and building predicting models.

WORK EXPERIENCE

Senior Executive Airport Operations, Singapore Airlines   Singapore
Jul 2021 – Present

- Led a full-scale manpower optimization project involving mathematical modelling, data collection, interpretation of results and submission of business case. Proved to management that a 10 – 20% tightening is possible without impact to operations.
- Reviewed and measured inefficiencies of turnaround processes across the network. Rebuilt a framework involving multiple stakeholders to achieve a timing 30% improvement in operational flow.
- Created mathematical models to quickly identify factors behind swings in Customer Satisfaction score involving applied statistics, saving up to 10 hours per month of manual work and improving accuracy of decision making.

Passenger Services Manager (Ops), SilkAir   Singapore
Jan 2019 – Jun 2021

Station Manager Mandalay, SilkAir   Mandalay, Myanmar
Oct 2019 – Dec 2019

- Analysed flight punctuality, turnaround duration, and customer connection duration, to improve operations, reduce turnaround time required, and enhance throughput.
- Investigated effects of passenger load factor on operational resource, punctuality, service shortfall and associated costs.
- Coordinated with government agencies, embassies, and other stakeholders during COVID-19 on the restricted movement of travellers at Changi and overseas airports.
- Negotiate with airport authority and ground handling agent to optimise resources and reduce manpower wastage.

Research Intern, Thales Solutions Asia   Singapore
May 2016 – Jul 2016

- Developed an algorithm to quantitatively analyse signatures of Doppler radar for identifying drones in an urban environment.
- Delivered a software platform which estimates the size and weight of targeted drones.

EDUCATION

Data Science Immersive, General Assembly   Singapore
Aug 2022 – Mar 2023

- Used regression models to identify factors that strongly affect the pricing of houses and built framework for advising first-time house buyers. Model achieved R2 of 92.6%.

- Deployed techniques in Natural Language Processing to identify an atheist versus a religion person using choice of vocabulary. Preliminary model achieved an accuracy of 83% using XGBoost.

Applied Machine Learning, Heicoders Academy   Singapore
May 2022 – Jul 2022
- Predicted loan defaulters using LendingClub's dataset of over 300k transactions. Attempted with models including Random Forest, XGboost, CatBoost, LightGBM, and ANN. The best model of CatBoost achieved an AUC of 0.911

PHD Candidate, Nanyang Technological University   Singapore
Aug 2016 – Jul 2018
- Modelled and analyse the capacity of the radio spectrum to support a hypothetical unified airspace system.
- Created a novel traffic collision avoidance envelope aimed at increasing air traffic throughput, using techniques including vector geometry, fuzzy logic, and decision-making algorithms etcetera.

B.Eng. in Aerospace Engineering,   Singapore
Nanyang Technological University
Aug 2012 – Jul 2016
- Obtained First Class Honours.
- Final year thesis: Design and implementation of an air traffic visualisation system involving 2D and 3D displays with touch interaction.

Minor in Business, Nanyang Technological University   Singapore
Aug 2012 – Jul 2016
- Obtained a Minor in Business accreditation alongside the Major.
- Focused on Business Finance, Accounting, Investments, Operations Management, Marketing.

ACHIEVEMENTS

Singapore Airlines CEO Service Excellence Awards   Singapore
Aug 2020
- In recognition of the coordination efforts to manage massive flight disruptions and cancellations resulting from 2019 haze incident in Penang, Malaysia.

NTU Nanyang President Graduate Scholarship   Singapore
Aug 2016 – Jul 2018
- Awarded to outstanding graduates with interest in pursuing a career in research.

NTU CN Yang Scholar Programme   Singapore
Aug 2012 – Jul 2016
- Awarded to undergraduates who showed strong interest in the natural sciences, mathematics, and engineering.

CERTIFICATIONS

- Applied Machine Learning – Heicoders Academy
- Machine Learning / Neural Networks / Deep Learning – DeepLearning.AI
- AWS Cloud Practitioner Essentials – Amazon Web Services