

Gary Phua Hwee Leng

Data Scientist & Machine Learning Engineer



Experience

DBS Bank

Assistant Vice President • Data Scientist • Consumer Banking Group

June 2022 — Present

- Conducted first Gen AI Pilot for automating marketing messages in DBS CBG. Responsible for prompt engineering personalised messages and liaising with product stakeholders and the tech team
- Developed customer lookalike model that determines customer onboarding journeys for the DBS digibank app that was deployed in production
- Implemented first Gen AI feedback reviewer in DBS CBG. Gen AI model reads and categorises customer feedback automatically, in place of a laborious manual process
- Developed end-to-end AI/ML model pipelines for customer acquisition and retention involving various portfolios including deposit, retirement, mortgage and remittance
- Built first Gen AI text to chart poc in DBS CBG. Model is able to create an interactive plotly chart to answer relevant user queries on DBS data within a secured environment
- Performed various data analytics tasks including customer profiling for app usage and customer transaction analysis for the digital bank war room
- Led team training for Python and data science. Designed training material from scratch, conducted lessons, and set assignments for various teams

Talo Labs

Machine Learning Engineer • Biotechnology

July 2021 — May 2022

- Computationally generated de novo drugs using a reinforcement learning model optimised for binding
- Increased stability of RNA sequences using reinforcement learning by minimising free energy
- Predicted protein ligand binding properties using a transformer model to be used for virtual screening
- Implemented a graph neural network model for drug toxicity prediction to be used for virtual screening

Independent projects

Rocket trajectory simulator

Independent Electron and Neutron flight simulator with interactive 3D playback and documented physics.

3D-printed Hungry Hippo fairing

Physical model of Neutron's opening fairing, built to explore its deployment mechanism.

Contact

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LinkedIn / Gary Phua

Singapore

Open to relocation
to New Zealand

Education

PhD in Computer Science

President's Graduate
Fellowship

Singapore University of
Technology and Design

Jan 2016 — Jan 2021

Bachelor's in Physics

First Class Honours

Nanyang Technological
University

Aug 2011 — Aug 2015

Tools & languages

Cursor, Python, LangChain,
PyTorch, SQL, Pandas,
PySpark

Outside of work

Lyric Writing
Hiking
Wildlife Photography
Videography