

Puah Yi Hao (25)

Machine Learning Engineer | Tiktok | Singapore

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Programming Skills

Python • SQL • R • C • Java • JavaScript • HTML

Soft Skills

Team Oriented • Problem Solving • Adaptability • Communicative Person

Hobbies

Bouldering • Hiking

Language Spoken

English • Chinese • French (Basic) • Korean (Basic)

EXPERIENCE

TikTok Jul 2024 – Present

Machine Learning Engineer

- TikTok Engineering – Business Risk Integrated Control (Local Service Team)
- Developed creator risk score for TTGo Local Service onboarding process in ID, JP, US & TH to mitigate financial risk from risky creators
- Developed content and behavioral models to mitigate irrelevant/spam reviews on TikTok Point of Interests. Reducing advertising & spam violative view rate by 60% and irrelevant reviews by 38%.
- Built inference service from scratch from Thrift IDL to hosting the model on internal cloud engine to enable real-time defense capabilities
- Built risk perception capability from ground up in the form of group mining (Leiden) and target abuse (Fake view/follow metrics)
- Collaborated with Governance & Experience team to develop dashboard to monitor metrics such as block rate

TikTok Jul 2022 – Jan 2023

Data Science Intern

- TikTok Engineering – Business Risk Integrated Control (Transaction Integrity Team)
- Performing risk perception for the Transaction Integrity (TxN) team to mitigate financial loss caused by fraudulent activity on the platform.
- Analyze business and security data to understand user behavior to develop rules to block bad users. Generate dashboards to monitor the risk related metrics. Evaluation of work can be referenced to the bi-monthly objective key results set by the team.
- Integrating machine learning models based on analysis and features generated to the problem.
- Optimize process in the TxN team daily investigation.
- Code in HIVE SQL (In-house system) and Python

Centre for Strategic Infocom Technologies May 2022 – Jul 2022

Data Science Intern

- Operational Product Department
- Researched on current tactics, techniques and procedures employed by certain groups.
- Data Analytics on Network metadata. Involved collection of own simulated tunnelling data and pre-processing. Learned to handle datasets of large sizes (35 million) via alternative packages to pandas such as Dask
- Worked on Classification on network data to identify and flag out malicious threats. Explored the problem through a machine learning and neural network perspective.

Defence Science Organisation May 2021 – Jul 2021

Computer Vision Intern

- Robotics Department (Data Analytics in the world of UAVs)

- Worked on Computer Vision project to detect unique signal frequencies (codeword could be changed depending on input) on live video feed and to subsequently track them. (Object detection and tracking).
- Data Analytics on Time Series data. Involved data filtering on noisy data through using low pass filters. Important features extraction was also done using Decision Tree classifiers to look at the features chosen in the first few levels.
- Worked on Predictive Analysis on Time series data to identify and flag out anomalous data. Trained LSTM models for Time series classification and sequence predictions. Library used was Keras and Tensorflow. (Linux and Windows)

EDUCATION

Nanyang Technological University, Singapore Aug 2020 – Dec 2024
Bachelor of Computing (Data Science & Artificial Intelligence)

- Nanyang Scholarship (Highest Tier of Scholarship offered by NTU)
- Dean's List AY20/21, AY21/22
- Obtained 16 A+, 6 A, 5 A- across all graded modules
- First Class Honors (GPA: 4.91)

Queensland University of Technology, Australia Jan 2023 – Jun 2023
GEM Explorer semester exchange program

- CGPA: 6.75/7
- Club Activities: QUT Cliffhangers (Outdoor Climbing)

Saint Andrew Junior College Feb 2016 – Dec 2017

- Achieved 90 Rank Points, AAA/A
- Honor Roll Student (Top 10%) for every Major Exam