

# Allen Yu

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## EDUCATION

<b>SINGAPORE MANAGEMENT UNIVERSITY, MITB Scholarship</b>	Jan 2024-Sep 2025
• Master of IT in Business (Artificial Intelligence Track)	
<b>XCELLERATE</b>	Feb 2023-Jul 2023
• Data Science and Machine Learning Certificate	
<b>CHINESE UNIVERSITY OF HONG KONG, Honors</b>	
• Master of Science in IT Management	Aug 2016-Aug 2017
• Bachelor of Business Administration in Hotel and Tourism Management	Aug 2012-Jun 2016
<b>INTERNSHIP/TA EXPERIENCE</b>	

<b>Starhub- Singapore</b>	May 2025-Nov 2025
<b>Data Science / ML Engineer Intern</b>	
• Optimized AI chatbot prompt engineering flows to improve relevance and insight quality	
• Synergized with Sales and Engineering to shape content flow and test JSON templates for LLM dashboard POC	
• Wrote data ingestion and orchestration scripts using LangSmith to automate insight generation via LLM agents	
<b>SMU- Singapore</b>	Apr 2025-Jul 2025
<b>Teaching Assistant</b>	
• Support professor in facilitating classes and lab sessions, and handling administrative responsibilities	

## ACADEMIC PROJECTS

<b>UNetNet the Longtail - (Deep Learning / Image Segmentation)</b>	
• Experimented with U-Net architectures using ResNet34, ResNet50, and EfficientNet encoders, along with ensemble and model-saving techniques, for CT scan image segmentation and classification.	
• Achieved 0.90 mIoU through a mixture of augmentation techniques, loss functions, and hyperparameter tuning.	
<b>Looking Behind the Veil: QR Code Scanner with Phishing Link Detection - (Machine Learning Engineering / AWS Sagemaker)</b>	
• Developed and deployed an end to end project on AWS Sagemaker, using Endpoint and Lambda to identify phishing QR codes by extracting key features from the URL	
• Achieved an 98% F1 score using XGBoost after feature engineering and hyperparameter tuning	
• Designed a front end mobile application to let users upload an image or scan a QR code for phishing detection	
<b>Loan Default Prediction - (Machine Learning)</b>	
• Created a model to assist banks in predicting whether a potential client will default on their loans using Python 3	
• Trained Logistic Regression, KNN, SVM, XGBoost, TabNetClassifier, and LGBM, achieving 78% AUC score on the best model after feature engineering and hyperparameter tuning	
<b>Malware Detection - (Machine Learning)</b>	
• Trained a model to detect malware in a received file for a classification issue using Jupyter Notebook	
• Used Logistic Regression, Decision Tree models, and ensemble methods XGBoost, AdaBoost and voting, achieving 99% F1 score after hyperparameter optimization	

## WORKING EXPERIENCE

<b>Elastic NV- Hong Kong</b>	Jan 2021-Dec 2022
<i>A software company that provides an all in one solution for Search, Observability, and Security</i>	
<b>Sales Development Representative (Jan 2021 – May 2022) Acting Team Leader ASEAN/HK (May 2022 – Dec 2022)</b>	
• Led the ASEAN/HK team, leveraging data-driven strategies and advanced performance analysis to optimize workflows, enhance operational efficiency, achieve KPIs, and refine strategic decision-making	
• Overhauled the onboarding program, reducing new hire learning curves by streamlining knowledge transfer and creating centralized data repositories	
• Designed and implemented scalable processes to manage lead pipelines using automation tools to increase efficiency	
<b>Bank Of China (Hong Kong) – Hong Kong</b>	Aug 2018-Dec 2019
<b>Business Analyst (Contract)</b>	
• Partnered with team leads to gather and analyze business requirements, translating them into detailed functional specifications and workflows	
• Analyzed test results to identify issues, optimize processes, and recommend improvements, enhancing system performance and operational efficiency.	

## SKILLS

- **Programming Languages:** Python, SQL, R
- **Frameworks/Libraries/Saas:** PyTorch, Tensorflow, OpenCV, Scikit-Learn, HuggingFace, AWS, Git, LangChain
- **Machine Learning & AI:** Deep Learning, CNN, NLP, Image Segmentation, Computer Vision
- **Language Skills:** English(Native), Mandarin(Native), Cantonese(Fluent)