

Tony Koo
<https://lmdlifers.github.io/>
<https://github.com/LMDlifers>
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EDUCATION	
National University of Singapore (NUS) <i>Bachelor of Science (Business Analytics)</i> <ul style="list-style-type: none">• Grade: Honours with Merit• Awards: University Engineering Scholarship, Sustainability Exchange 2024 Champion• Projects: Smoodee, IBKR Algo Bot, MWH Website Dev• Relevant Coursework: Programming Methodology, Data Structures and Algorithms, Econometrics	Singapore August 2023 – Present
Temasek Polytechnic <i>Diploma in Accountancy & Finance</i> <ul style="list-style-type: none">• Grade: Diploma with Merit• Awards: Letters of Appointment: A&F Vice-President and Business EXCO, ISCA award• Projects: Value at Risk, Simulated Portfolio Management, WireCard, YouCard, Portz• Relevant Coursework: Accounting, Economics, Financial and Risk Analysis, FinTech, Tax Management	Singapore April 2018 – May 2021
WORK EXPERIENCE	
SKEZI <i>Data Scientist Intern</i> <ul style="list-style-type: none">• Architected an Advanced RAG pipeline with MultiQuery Retrieval and FAISS-backed semantic caching, reducing LLM API costs and optimizing latency via mean-pooled embeddings.• Developed an automated data collection pipeline using Computer Vision for PDF extraction and conducted R&D on medical questionnaire image processing.• Optimized production pipelines using asyncio for a 4.7x processing speedup and executed a strategic model migration that slashed API costs by 80%.• Executed advanced Prompt Engineering (system instructions & few-shot prompting) to align the chatbot's tone with medical guidelines and significantly reduce hallucination rates.• Refined topic detection using HDBSCAN and Mistral-based Zero-Shot labeling, while ensuring GDPR compliance via automated P.I.I. redaction pipelines.	Paris, France Jul 2025 – Dec 2025
Tradition Energy <i>Quantitative Developer Intern</i> <ul style="list-style-type: none">• Developed and implemented VBA-driven financial models for forward swap contracts, enhancing client satisfaction and driving successful project outcomes• Managed server-based spreadsheets encompassing multiple financial instruments, created a centralized workflow with python, thereby improving efficiency by 5 hours and calculation speed from 6.09s to 0.86s.• Conducted implementation of Nelson-Siegel, Svensson, and monotone convex to yield curve constructions on VBA driven spreadsheets, resulting in more robust calculations for client-facing materials• Contributed to the development of new financial products by combining market data analysis and modelling expertise, leading to the launch of 2 new instruments in the energy market, expanding business portfolio• Developed correlation analytical solutions with Bloomberg API calls and VBA with sorting algorithms.	Singapore, Singapore May 2024 – August 2024, May 2025 – July 2025
Tradition Energy <i>Middle Office Analyst Intern</i> <ul style="list-style-type: none">• Spearheaded the onboarding of 20+ international clients, streamlining existing SOPs.• Coordinated with trading desks and operations teams to ensure accurate execution of high-volume trades, streamlining the process to reduce errors, and improving overall operational efficiency• Worked closely with the London HQ and other regional offices to ensure smooth transactions across time zones, improving coordination and communication between global offices, reducing time-lag in work output	Singapore, Singapore September 2020 – May 2021
SKILLS, ACTIVITIES & INTERESTS	
Technologies: Python, SQL, Java, Javascript, AWS, R, VBA, Tableau, Figma, Microsoft Excel, Word & Powerpoint Spoken Languages: English (Native), Chinese Mandarin (Intermediate), French (Basic) Certifications & Training: Chartered Financial Analyst (CFA) Foundations Competitions: Deloitte, WireCard FinTech, YouCard, Sustainability exchange	