

HONG NGOC LE

Email: hngoc.le.404@gmail.com | Phone: (+84) 77 888 2602 | Portfolio: <https://hngocle404.github.io/portfolio/>

RELEVANT EXPERIENCE

Quantitative research assistant ICLS Tech	Ho Chi Minh City, Vietnam April 2024 – Current
<ul style="list-style-type: none">Performed comprehensive data cleaning, preprocessing, and feature engineering on FOREX and CRYPTO datasets, ensuring high-quality inputs for machine learning models.Applied a triple-labelling method for labelling FOREX and CRYPTO data, integrating regime-switching models such as Gaussian Mixture Models and Hidden Markov Chains to enhance prediction accuracy in volatile market conditions.Developed and implemented automated machine learning pipelines to assess the probability of backtest overfitting and evaluate the robustness of existing cross-validation schemes.	
Product assistant YOLA English	Ho Chi Minh City, Vietnam Jan 2022 – Jan 2023
<ul style="list-style-type: none">Assisted the Product Manager in developing an English learning app and web extension, conducting market research and executing targeted marketing strategies; increased the app's user base by 25,000 and the extensions by 15,000, achieving a monthly active user rate of ~50%.Collaborated with external artists to implement user-nurturing strategies, resulting in a 7-10% retention rate for the 21-day user cohort.	

EDUCATION

WorldQuant University Master of Science in Financial Engineering	Remote Oct 2024 – Current
Western Sydney University Vietnam Bachelor of Business – Applied Finance Major (advanced graduation - degree completion in 2 years)	Ho Chi Minh City, Vietnam May 2022 – May 2024
<ul style="list-style-type: none">Dean's Merit List for Academic Excellence - Distinction Award (GPA: 6.43/7.00; equivalent to 3.67/4.00)Awarded 192,000,000VND+ in scholarships over 2 years (Highest-tier First-year, Second-year, and Third-year Vice-Chancellor's Academic Excellence Scholarships; third-year scholarship awarded a year ahead of cohort).Selected by HCMC Department of Industry and Trade & HCMC Women Entrepreneurs Association to represent Australia at the ASEAN++ Bridge Forum, engaging with over 500 diplomats, consuls, business associations, including Australian Consul-General Ms Sarah Hooper, to promote sustainable development.Achieved High Distinction (A+ equivalent) in Econometrics, Philosophical Economics, Securities & Business Valuation, Financial Institutions & Markets, Management, Accounting, Economics, Enterprise Law, Consumer Behaviour, International Business, Corporate Finance, and Human Resources.	
VNU-HCM University of Economics and Law (UEL)	Ho Chi Minh City, Vietnam
<ul style="list-style-type: none">Awarded 36,000,000VND in scholarships over 1 semester (Valedictorian entrance scholarship for highest SAT/IB score; Academic scholarship for highest GPA in semester 1).Assisted with qualitative data analysis for a paper titled "Peer Tutors' Agency and Emotions in Tertiary English Education in Vietnam" and participated in Sociology and Cross-Cultural Studies classes for Master's students.	
Condell Park High School	Sydney, Australia
<ul style="list-style-type: none">Valedictorian / Dux of High School and First in Course throughout all academic yearsHSC Band 6/6 for Mathematics Advanced (93/100) and Mathematics Extension 1 (47/50); Top 8.4% for all-subject performance in State of NSWHigh School Student Academic Excellence Award University of SydneyDistinction & Merit awards Australian Mathematical Olympiad (AMO) & Australasian Problem Solving Mathematical Olympiads (APSMO)	
Tran Dai Nghia High School for the Gifted	Ho Chi Minh City, Vietnam

EXTRACURRICULARS & NON-ACADEMIC ACHIEVEMENTS

<ul style="list-style-type: none">P&G PEAKathon 2024 Top 4 Finalists of VietnamProject X IT mentorship programme Participated in a non-profit fellowship program to connect tech startups with the Vietnamese students interested in IT and offer mentorship, career orientations, and technical / soft-skills training through events/workshops and building communities.University English club EFFI Project leader of a team of 40+ members, organised two successful projects attracting over 250 participants.YOLA English Tutor Tutored students, ranging from school-age to working professionals, in IELTS preparation and general English language proficiency.University Music club SOL Member of the piano team, in charge of piano-related production for 2 music videos.Vietnam's Southern region IELTS Talent Contest 2021 First place award (month) and Merit award (quarter).Freelance graphic designer Designed 200+ presentations, logos, marketing and product materials in accordance with strict regulatory requirements (U.S. FDA standards) for export to international markets such as Japan, New Zealand, and the U.S; experience in preparing materials for both digital and print production.

SKILLS

<ul style="list-style-type: none">Technical tools Python, R, PostgreSQL, LaTeX, Markdown, CSS, Excel, SPSS, Minitab, Stata, PowerBILanguages Proficient English (CEFR C2, 4.5 years of overseas study experience), Elementary Korean, Elementary Chinese, Elementary FrenchFinance Financial machine learning (time series forecasting, predictive modelling, algorithmic trading), securities analysis, company valuation, corporate finance & capital structure, portfolio management, economic and financial modelling, international financeBusiness strategy Consumer behaviour analysis, customer segmentation, market research, strategic management, consulting, international business strategyGraphic design Adobe Photoshop, Adobe Illustrator
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TECHNICAL PROJECTS

Evaluate backtest overfit in popular financial cross-validation schemes using AutoML (research paper) Machine learning, Python	Not published yet
<ul style="list-style-type: none">Used regime-switching models (Hidden Markov Chain) and Entropy Theory of Information for feature construction and engineering FOREX and CRYPTO dataEvaluated the extent of overfit in K-Fold, Purged K-Fold, Walk Forward, Combinatorial Purged & Embargoed Cross Validation (CPCV) using Automated ML pipelines	
Business model analysis and stock valuation of public company – Hoang Anh Gia Lai Finance, Excel	Link
<ul style="list-style-type: none">Analysed HAG's 3F business model, SWOT, Porter's competitive positioning analysis, financial ratios, valuation risk (sensitivity analysis and scenario analysis) and investment risks (Altman's Z-Score, Kupiec POF test and Monte Carlo simulation).Initiated coverage on HAG with a BUY recommendation based on a target price of 11,220 VND through a weighted mix of DCF, APV, and relative valuation (CCA).	
Stock analysis & Value-at-Risk estimation for major US tech companies Finance, Python	Link
<ul style="list-style-type: none">Provided analysis of the stock performance (AAPL, AMZN, GOOG, MSFT), incl. closing prices, trading volumes, moving averages, daily returns using real-time dataEstimated Value-at-Risk using 3 methods: historical, parametric and Monte Carlo simulation.	
Loan approval prediction using k-Nearest-Neighbour model built from scratch Machine learning, Python	Link
<ul style="list-style-type: none">Built a kNN model from scratch to predict loan approval and simple linear regression to improve accuracy	