

Relevant experience

Quantitative research assistant ICLS Tech	04/2024 – Current Ho Chi Minh City, VN
<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	01/2022 – 01/2023 Ho Chi Minh City, VN
<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	10/2024 – Current Remote
Western Sydney University Vietnam Bachelor of Business – Applied Finance Major	05/2022 – 05/2024 Ho Chi Minh City, VN
<ul style="list-style-type: none">Dean's Merit List for Academic Excellence (Distinction Award) with an accelerated degree completion time of 2 years.Awarded 193,000,000 VND+ in scholarships over 2 years (Highest-tier 1st year, 2nd year, and 3rd year Chancellor's academic excellence scholarships)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) Bachelor of International Economics	09/2021 – 02/2022 (Discontinued) Ho Chi Minh City, VN
<ul style="list-style-type: none">Awarded 36,000,000 VND+ 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	2017 – 2020
<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 NSWDistinction & Merit awards Australian Mathematical Olympiad (AMO) & Australasian Problem Solving Mathematical Olympiads (APSMO)High School Student Academic Excellence Award University of SydneySchool Science Award Victor Chang Cardiac Research InstituteTop 8% of students in Australia in English University of New South Wales International Competitions and Assessments for SchoolsEarned advanced standing, skipping 1 academic year based on outstanding performanceNominated for the NSW International Student Award State of New South Wales, Australia	

Tran Dai Nghia High School for the Gifted	2014 – 2016 (Discontinued)
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Extracurriculars & Non-academic achievements

<ul style="list-style-type: none">P&G PEAKathon 2024 Top 4 Finalists of VietnamVietnam's Southern region IELTS Talent Contest 2021 First place award (month) and Merit award (quarter)Mentee at Project X Joined a fellowship for Vietnamese students interested in IT, offering career guidance, and skills trainingProject leader at university's English club EFFI Leader of a team of 40+ members, organised two successful projects attracting 250+ participants.YOLA English Tutor Tutored students and working professionals, in IELTS preparation and general English language proficiencyMember of university's music club SOL Member of the piano team, in charge of piano-related production for 2 music videosFreelance graphic designer Designed 200+ presentations, logos, marketing and product materials in accordance with strict regulatory requirements (e.g. 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	
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Skills

<ul style="list-style-type: none">Technical tools Python, R, PostgreSQL, LaTeX, Markdown, CSS, Excel, SPSS, Minitab, Stata, PowerBILanguages English (CEFR C2, 4.5 years of overseas study experience), Chinese (HSK II), Korean and French (Elementary)Business / Finance Financial machine learning, market research, algorithmic trading, securities analysis, portfolio management, stock valuationGraphic design Adobe Photoshop, Adobe Illustrator	
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Projects

Evaluate backtest overfit in popular financial cross-validation schemes using AutoML (research paper) Machine learning, Python	
<ul style="list-style-type: none">Used regime-switching models (Hidden Markov) 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 Cross Validation (CPCV) using AutoML	
Stock analysis & Value-at-Risk estimation for major US tech companies Finance, Python	Link
<ul style="list-style-type: none">Analysed stock performances (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.	
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).	
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	