

# NGOC LE

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Business graduate with strong technical proficiency & hands-on experience across product research, business analysis, and machine learning. Excels in agile, cross-functional environments where breadth and versatility matter.

## EXPERIENCE

### Product research | SPINS

03/2025 - Current

- Maintained product intelligence databases covering the North American Consumer Packaged Goods sector, supporting UPC-level classification across a dataset of over 3 million SKUs, 3,200+ product types, and 180+ attributes, leveraging POS and consumer panel data.
- Designed and implemented Python scripts, Windows batch scripts, and SQL scripts to automate data extraction and analysis processes for product and market research.

### IT business analyst intern | Doccen

12/2024 - 03/2024

- Crafted technical documentation including user stories, user flows, feature logic, and UI wireframes in Figma, informed by basic grasp of full-stack development (frontend, backend, and database).
- Conducted User Acceptance Testing (UAT) including inspecting UI elements, verifying API responses and validating database interactions in PostgreSQL.
- Led Agile workflows with Jira, prioritising backlog and facilitating cross-functional communication.
- Redesigned the company sitemap and implemented slug generation rules to optimise SEO.

### Machine learning research assistant | ICLS Tech

04/2024 - 10/2024

- Researched advancements in financial machine learning, summarising key methodologies and findings.
- Conducted experiments to evaluate backtest overfitting and analysed how different automated machine learning frameworks affect the reliability of performance metrics.

### Product assistant | YOLA

01/2022 - 02/2023

- Assisted the PM in developing a learning app and web extension, conducting market research, and executing targeted marketing strategies, resulting in 25,000 new app users, 15,000 extension users, and ~50% monthly active engagement.
- Designed user-nurturing strategies, including personalised onboarding & engagement social media campaigns, leading to a 7-10% retention rate for the 21-day cohort.

## EDUCATION

### Western Sydney University Vietnam | Bachelor of Business (Finance major)

08/2022 - 08/2024

- GPA: 6.43/7.00 | Dean's Merit List for Academic Excellence
- Awarded 5 Vice-Chancellor's Scholarships (₫230M total)
- Completed degree on accelerated timeline (2 years)
- Top 4 Local Finalists of Vietnam- Procter & Gamble Peakathon 2024

### Condell Park & Tran Dai Nghia High Schools

2014 - 2021

- Valedictorian & First in Course for all senior subjects
- Australian Mathematical Olympiad & Australasian Problem Solving Mathematical Olympiads awards

## TECHNICAL PROJECTS

### Comprehensive strategic, competitive and financial analysis of Hoang Anh Gia Lai company

- Analysed HAGs business model, competitive SWOT & Porter's, financial performance, risks (sensitivity, scenario, Altman's Z score, Kupiec POF, Monte Carlo simulation) and valuation (weighted mix of DCF, APV, CCA).

### Measuring backtest overfit among financial cross-validation methods using AutoML

- Used regime-switching model (Hidden Markov Chain) and Entropy Theory of Information for feature construction and engineering of FOREX & CRYPTO data.
- Calculated the Probability of Backtest Overfitting & Deflated Sharpe Ratio to assess the level of backtest overfitting across Combinatorial Purged K-fold, K-fold, Purged K-fold, Walk Forward across different Automated Machine Learning pipelines.

### Neural machine translation: long short-term encoder-decoder model with attention mechanism

- Built a neural machine translation model for French-Vietnamese using a long short-term memory (LSTM) encoder-decoder architecture with Bahdanau attention in TensorFlow and Keras.
- Preprocessed bilingual corpora with Python (NumPy, pandas, NLTK), applied tokenisation and padding, and evaluated performance using BLEU scores.

## EXTRACURRICULARS

- Project leader** | YOLA: Led a team of 40+ members, organising 2 successful projects with 250+ participants.
- Graphic designer** | Freelance: Created 200+ marketing and packaging assets for international export (Japan, US, NZ, etc.).
- Pianist** | UEL Music club: Performed piano for two music video productions.
- English tutor** | UEL English club: Provided IELTS preparation tutoring for students and working professionals.