Bach Chi Le

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Education

08/2023 - 05/2025 **Master of Science in Financial Engineering**
Lehigh University
Grade: 3.93/4.0

08/2020 - 07/2023 **Bachelor of Commerce in Finance and Economics**
University of Melbourne
Grade: First Class Honours (H1)

Awards and Honors

2024 Graduate Business Life Leadership Award, *Lehigh University*

2024 Center for Financial Services Research Fellowship, *Lehigh University*

2023 Director's Scholarship, *Lehigh University*

2022 Melbourne International Undergraduate Scholarship, *University of Melbourne*

2020 Bachelor of Commerce Global Scholarship, *University of Melbourne*

Publications

Preprints

2025 **Tight Robustness Certificates and Wasserstein Distributional Attacks for Deep Neural Networks**
Le, B. C., Dao, T. V., Nguyen, B. T., & Chu, H. T. M.
arXiv preprint arXiv:2510.10000.

Presentations

01/2025 **Mixed versus Traditional Multiple Team Membership Configurations: Understanding Team Satisfaction through the Mediating Role of Identity and Moderating Effect of Intra-Team Conflict**
Moore, O. A., Mchiri, A., Grady-Moreno, A., & **Le, B. C.**
Presented at the INGRoup 2025 Midyear Conference, Virtual.

Research Experience

VinUniversity

06/2025 - Present **Mathematical Analysis of Modern Deep Learning Architectures**
Advisors: Prof. Binh T. Nguyen & Prof. Hong T. M. Chu
Investigating the stability and convergence of deep learning dynamics using tools from optimal transport, mean-field theory, and Lipschitz analysis.

Lehigh University

09/2024 - 05/2025 **Adaptive Distributionally Robust Optimization for Time Series**
Advisor: Prof. Lam M. Nguyen
Derived a tractable convex reformulation of the Adaptive Distributionally Robust Optimization problem for ensemble time series forecasting, analyzed its computational complexity, and validated its predictive performance.

04/2024 - 05/2025 **Risk Management in Deregulated Markets**
Advisor: Prof. Alberto J. Lamadrid
Benchmarked risk management strategies in deregulated commodity markets, analyzed theorectical bounds, and derived equivalence conditions between Stochastic, Robust, and Info-Gap optimization frameworks.

01/2024 - 05/2025 **Optimal Structure of Pemantle's Min-Plus Binary Trees**
Advisor: Prof. Si Tang
Studied the conjecture that balanced Pemantle's Min-Plus binary trees yield the maximal expected root value via probabilistic induction and computational verification.

11/2023 - 05/2025 **Statistical Analysis of Multiple Team Membership Dynamics**
Advisor: Prof. Ozias A. Moore
Analyzed the effects of multiple team membership configurations using multi-level modeling and Monte Carlo simulation techniques to assess mediation pathways and organizational outcomes.

University of Melbourne

09/2022 - 11/2022 **The Short Interest Effect in Stocks**
Advisors: Prof. Nitin Yadav & Prof. Peter L. Bossaerts
Investigated the empirical persistence of the short interest anomaly in US equities by designing algorithmic strategies to isolate behavioral inefficiencies using momentum signals and mean-variance optimization.

Teaching Experience

02/2026 - 06/2026 **MATH4010: Advanced Probability and Statistics**
VinUniversity
Teaching Assistant

Professional Experience

06/2024 - 08/2024 **Complex Securities & Financial Instruments Intern**
Stout Risius Ross, New York, NY
Developed Monte Carlo simulations & pricing models for complex, illiquid instruments.

05/2024 - 04/2025 **Mathematics Consultant**
Outlier AI, San Francisco, CA
Evaluated and refined mathematical reasoning in Large Language Models.

04/2023 - 04/2024 **Research Consultant**
WorldQuant, Hanoi, Vietnam
Developed and backtested quantitative alpha strategies for global equity markets.