

# Bach Chi Le

Hanoi, Vietnam, 100000  
M +84 798 460 977

E lechibachh@gmail.com

W lechibachh.github.io

in lechibachh

## 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	<b>Adaptive Distributionally Robust Optimization for Time Series</b> <i>Advisor: Prof. Lam M. Nguyen</i> 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	<b>Risk Management in Deregulated Markets</b> <i>Advisor: Prof. Alberto J. Lamadrid</i> Benchmarked risk management strategies in deregulated commodity markets, analyzed theoretical bounds, and derived equivalence conditions between Stochastic, Robust, and Info-Gap optimization frameworks.
01/2024 - 05/2025	<b>Optimal Structure of Pemantle's Min-Plus Binary Trees</b> <i>Advisor: Prof. Si Tang</i> 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	<b>Statistical Analysis of Multiple Team Membership Dynamics</b> <i>Advisor: Prof. Ozias A. Moore</i> Analyzed the effects of multiple team membership configurations using multi-level modeling and Monte Carlo simulation techniques to assess mediation pathways and organizational outcomes.  <i>University of Melbourne</i>
09/2022 - 11/2022	<b>The Short Interest Effect in Stocks</b> <i>Advisors: Prof. Nitin Yadav &amp; Prof. Peter L. Bossaerts</i> 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.
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	<b>Teaching Experience</b>
02/2026 - 06/2026	<b>MATH4010: Advanced Probability and Statistics</b> <i>VinUniversity</i> Teaching Assistant
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	<b>Professional Experience</b>
06/2024 - 08/2024	<b>Complex Securities &amp; Financial Instruments Intern</b> <i>Stout Risius Ross, New York, NY</i> Developed Monte Carlo simulations & pricing models for complex, illiquid instruments.
05/2024 - 04/2025	<b>Mathematics Consultant</b> <i>Outlier AI, San Francisco, CA</i> Evaluated and refined mathematical reasoning in Large Language Models.
04/2023 - 04/2024	<b>Research Consultant</b> <i>WorldQuant, Hanoi, Vietnam</i> Developed and backtested quantitative alpha strategies for global equity markets.