

# MANH CUONG NGUYEN

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Personal website

## EDUCATION

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### University of Glasgow, U.K.

2024 - 2025

*Master of Science, Data Analytics for Economics and Finance*

- GPA: 18.42/22

- Master dissertation: Variational Inference for Hybrid Deep Learning Models in Stock Price Forecasting supervised by Dr. Santiago Montoya-Blandón.

- Relevant Modules: Bayesian Data Analysis, Econometrics 2, Deep Learning, Applied Time Series, Statistical Machine Learning, Microeconometrics, Text Analytics.

### National Economics University, Vietnam

2020 - 2024

*Bachelor of Science, Finance*

- GPA: 3.8/4.0 or 8.84/10 (First-class honour)

- Bachelor dissertation: The Role of Personal Financial Leverage in Real Estate Transactions in Vietnam supervised by Dr. Anh The Khuc.

- Relevant Modules: Econometrics, Statistics, Calculus, Microeconomics, Macroeconomics, International Economics, Business Finance, International Finance, Investment Principles, Portfolio Analysis, Fixed Income Securities, Derivatives.

## SHORT COURSES

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### Modern Statistics with R, Vietnam Institute for Advanced Studies in Mathematics

Dec 2023

*Fully-funded by Vietnam Institute for Advanced Study in Mathematics*

### Research and learning experience program, Vietnam Summer School of Sciences

Aug 2023

*Fully-funded by Vingroup Innovation Fund and Vietnam Institute for Advanced Study in Mathematics*

## RESEARCH EXPERIENCE

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### Research Assistant, National Economics University, Vietnam

Jun 2022 -

*Supervised by Dr. Anh The Khuc*

- Collect and analyse primary data on digital financial services, borrower behaviour, and crowdfunding for behaviour analysis projects.

- Process and interpret secondary data from development banks.

- Prepare materials and write literature review for publications.

## PROJECTS

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### Multilateral Development Banks (MDBs) profitability

Jan 2025 -

*National Economics University*

- Preprocess annual financial data from 17 multilateral development banks worldwide from 2016 to 2024, including structuring wide-format data into panel data, merging datasets, and imputing missing values.

- Estimate baseline relationships using Pooled OLS, then control for unobserved heterogeneity with Fixed Effects (FE) and Random Effects (RE) models.

- Correct endogeneity via Two-Stage Least Squares (2SLS) and Two-Stage Correlated Random Effects (2S-CRE).

- Conduct statistical analysis and prepare reports using R.

## Bayesian Lasso & Group Lasso implementation

Mar 2025

*University of Glasgow*

- Design and implement Gibbs samplers from first principles for the Bayesian Lasso (Park & Casella, 2008) and Group Lasso (Kyung et al., 2010).
- Build a Monte Carlo simulation framework to replicate published experiments: generated correlated covariates (trichotomized and interaction terms) and executed multiple replications to evaluate estimator behaviour.
- Compute posterior modes and Monte Carlo mean squared errors for each parameter estimate, systematically comparing shrinkage profiles and variable-selection accuracy between methods.
- Conduct the analysis using MATLAB.

## Stock market prediction

Mar 2025

*University of Glasgow*

- Preprocess a dataset containing daily percentage price movements of 442 companies from 05/04/2010 to 31/03/2022, specifically performing data normalisation and constructing a data loader.
- Develop a model for forecasting next-day closing returns (01/04/2022) and evaluate its performance using Mean Squared Error (MSE).
- Design a Long Short-Term Memory (LSTM) neural network architecture, performing hyperparameter tuning (e.g., number of hidden layers, neuron count, learning rate) to optimise model performance and achieve the lowest possible MSE.
- Implement model training and evaluation in Python using PyTorch.

## PUBLICATIONS

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Anh The Khuc, Phuong Thi Hoai Nguyen, **Manh Cuong Nguyen**, Ha Thu Le, “*Perceived risks of financial misconduct and fintech in crowdfunding of Vietnamese individual investors*”, Emerging Markets Review (2024).

Khuc The Anh, **Nguyen Manh Cuong**, Nguyen Ha Anh, Vu Hoang Anh, Nguyen Quoc Tien, “*Access to credit for real estate transactions in emerging markets - Empirical evidence from Vietnam*”, Journal of International Economics and Management (2024).

## ACADEMIC ACHIEVEMENTS

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<b>Adam Smith</b> Skills Award, University of Glasgow	Jun 2025
<b>Top 5</b> in Capco case study competition - Finance consulting, Scottish Universities	Nov 2024
Award for Graduating with <b>Excellent</b> Academic Results, National Economics University	Sep 2024
Scholarship for <b>Outstanding</b> High-Class Rankings, National Economics University	2022 - 2024
<b>Second prize</b> (2024, 2023) and <b>Third prize</b> (2022) in Scientific Research competition, National Economics University	2022 - 2024
<b>5-Merit</b> Student Award, National Economics University	2022 - 2024

## SKILLS

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**Programming** Python, R, MATLAB,  $\text{\LaTeX}$ , Stata, EViews.  
**Languages** Vietnamese (native), English (fluent)

## REFERENCES

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### Dr. Manh The Nguyen

*Dean of Faculty of Mathematics*

College of Technology

National Economics University, Vietnam

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### Dr. The Anh Khuc

*Senior lecturer in Banking and Finance*

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National Economics University, Vietnam

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