

Brian Godwin Lim

Research Data Scientist

PROFESSIONAL SUMMARY

Brian is a doctoral candidate in Information Science at the Nara Institute of Science and Technology and an Applied Mathematics graduate of Ateneo de Manila University. His expertise spans Mathematical Modeling, Graph Theory and Decision Diagrams, Machine Learning and Data Science, and Finance and Econometrics. Known for his quick study, adept problem-solving abilities, and passion for bridging the gap between theory and application, Brian is committed to delivering innovation and real-world impact by leveraging quantitative methods.

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Experience



Apr 2023 – Present

Researcher at Mobility Fundamentals Mathematics Research by Kyoto University & Toyota Motor Corporation

- Spearheaded 4 research projects concerning mobility society, employing graph-theoretic, decision-diagram, and deep learning methodologies
- Presented and published research findings at 2 international conferences and 4 academic journals, highlighting novel research contributions
- Collaborated and networked with over 30 students, professors, and practitioners from Kyoto University and Toyota Motor Corporation, fostering valuable interdisciplinary connections

Mar 2023 – Present

Technical Consultant at Blue Dot Analytics

- Performed comprehensive analysis of the transactional data of 2 FinTech clients, identifying key patterns to support strategic decision-making
- Developed 3 interactive dashboards to support real-time monitoring of transactional behaviors and to identify potentially fraudulent transactions
- Trained, deployed, and maintained 2 machine learning models and pipelines, automating key business operations to improve efficiency

Jan 2022 – May 2022

Research Intern at Phitopolis

- Developed a suite of Python-based statistical and machine learning tools, aiding 5 key analyses on option pricing
- Analyzed the relationship between the ESG performance of a firm and its option prices, revealing a 2.22% monthly ESG premium
- Co-authored a report on "An Exploration on the Relationship Between ESG Performance and Option Price" demonstrating a 23.55% improvement in call option price predictions by incorporating ESG-derived features

Languages



English	TOEIC-IP: 960
Filipino	Native Proficiency
Mandarin	HSK 4
Japanese	JLPT N4: 141

Skills



Programming

Python C++ R MATLAB SQL

Machine Learning

Deep Learning Graph Neural Network
Recommender System Causal Inference
Large Language Model
Retrieval Augmented Generation

Machine Learning Frameworks

Scikit-Learn PyTorch TensorFlow
Deep Graph Library Ray MLFlow
LangChain

Applied Mathematics

Mathematical Modeling
Mathematical Finance Econometrics
Statistics Graph Theory
Decision Diagrams

Education



Oct 2022 – Sep 2025

Doctor of Engineering in Information Science from Nara Institute of Science and Technology

- Monbukagakusho (MEXT) Scholarship
- Mathematical Informatics Laboratory

Jun 2021 – May 2022

Masters in Applied Mathematics, Major in Mathematical Finance from Ateneo de Manila University

- Graduate Assistant Scholarship
- QPI: 3.97 / 4.00

Aug 2017 – Jun 2021

Bachelor of Science in Applied Mathematics with Specialization in Mathematical Finance from Ateneo de Manila University

- Financial Aid Scholarship
- Minor in Chinese Studies
- QPI: 3.89 / 4.00 (Summa Cum Laude)
- Program Awardee

Featured Publications



Journal Articles

Lim, B. G., Dayta, D., Tiu, B. R., Tan, R. R., Garces, L. P. D., & Ikeda, K. (2026). **Dynamic Factor Analysis of Price Movements in the Philippine Stock Exchange**. *Financial Innovation*. (In Press).

Lim, B. G., Lim, G. B. S., Tan, R. R., & Ikeda, K. (2025). **Contextualized Messages Boost Graph Representations**. *Transactions on Machine Learning Research*. (Reproducibility Certification).

Lim, B. G., Tan, R. R., Kawahara, J., Minato, S.-I., & Ikeda, K. (2024). **A Recursive Framework for Evaluating Moments Using Zero-Suppressed Binary Decision Diagrams**. *IEEE Access*, 12, 91886–91895.

Conference Proceedings

Lim, B. G., Liu, J., Ong, H. J., Chan, J. A., Tan, R. R., King, I., & Ikeda, K. (2025). **FinSIR: Financial SIR-GCN for Market-Aware Stock Recommendation**. *2025 International Joint Conference on Neural Networks (IJCNN)*. (In Press).

Lim, B. G., Ong, H. J., Tan, R. R., & Ikeda, K. (2024). **Dynamic Principal Component Analysis for the Construction of High-Frequency Economic Indicators**. *Proceedings of the 4th International Conference on Advances in Computational Science and Engineering*, 645–663.

Tan, R. R. P., Asuncion, A. E. C., Lim, B. G. S., Soos, M., & Ikeda, K. (2023). **The Pancake Graph of Order 10 Is 4-Colorable**. *Proceedings of the 2023 6th International Conference on Mathematics and Statistics*, 1–6.

Awards



Mar 2021

Second Runner Up at UP Association for Computing Machinery Algolympics

Mar 2020

Individual Top Scorer & First Runner Up (Team Category) at Stat-Is-Eeks: An Interuniversity Quiz Show for NonStatistics Majors

Dec 2019

27th Place at ICPC Asia Manila Regional Contest

Conferences & Seminars



Mar 2024

Machine Learning Summer School 2024 by Okinawa Institute of Science and Technology

Dec 2023

4th International Conference on Advances in Computational Science and Engineering by De La Salle University

Jul 2023

6th International Conference on Mathematics and Statistics by Association for Computing Machinery

Certifications



Oct 2024

Building RAG Agents with LLMs from NVIDIA

Jan 2023

Introduction to Machine Learning for Trading from QuantInsti

Jan 2023

Python for Machine Learning in Finance from QuantInsti

Jan 2022

Neural Networks and Deep Learning from Coursera (DeepLearning.AI)



Oct 2017 – Jun 2022

Member at Ateneo Programming Varsity

- Engaged in regular intensive training to refine problem-solving and competitive programming skills, focusing on math-related algorithms and problems
- Participated in various local and international competitive programming competitions, including Google Code Jam, ICPC, and Codeforces
- Contributed to several initiatives aimed at enhancing competitive programming skills among students

May 2020 – Jun 2021

President at Ateneo Mathematics Society

- Spearheaded the transition to online organizational activities during the COVID-19 pandemic, ensuring continuous operation of the organization of over 250 members
- Led the 15-member Executive Committee in optimizing organizational systems and processes while prioritizing member well-being
- Initiated a comprehensive review of the organizational constitution, leading to the successful ratification of a revised constitution

May 2019 – Apr 2020

Academics Department Head at Ateneo Mathematics Society

- Supervised over 100 members in the Academics Department, managing 2 projects and 3 pools
- Guided 8 project and pool heads in strategic planning and decision-making, enhancing overall department effectiveness
- Initiated and implemented process optimizations to streamline department operations



FinSIR

ABOUT

Novel spatio-temporal graph neural network model for stock recommendation

SIR-GCN

ABOUT

Novel graph neural network: Soft-Isomorphic Relational Graph Convolution Network

Dynamic Factor Analysis

ABOUT

Python package for dynamic factor analysis

TdZdd Utility

ABOUT

Additional utility files for the TdZdd library for zero-suppressed binary decision diagrams

ESG Performance and Option Price

ABOUT

Masteral capstone project on the relationship between ESG performance and option price

WLCON Investment Report

ABOUT

Investment research report on Wilcon Depot