

# Adriel Ong

## Curriculum Vitae

Website:	<a href="https://manifoldpreacher.github.io/index.html">https://manifoldpreacher.github.io/index.html</a>
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Position held:	Academic Council Staff, M&S Research Hub
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## Consultancy Work

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WIP	Banking Sector Business Intelligence Estimated several models regarding financial institutions, including Markov Chains and regression models.
WIP	Classification Model for Shark Behavior Performed classification modeling on longitudinal data for shark behavior, with corrections for autocorrelation and multicollinearity.
2020/04	Uncorrelated Capital Asset Pricing Estimation for Multiasset Portfolio Estimated a Capital Asset Pricing Model for a panel of assets with uncorrelated alpha and beta.
2021/04	Rotavirus Vaccine Economic Analysis Performed Economic analysis for the Rotavirus vaccine for different income classifications.
2020/10	Cafe Aghora Sales Consultancy Gave consultation for a data science team which analyzed optimal days for sales from Cafe Aghora in Bacolod City.
2020/10	Sta Rita Orphanage Data Engineering Gave consultation for a data science team which performed data engineering for Sta Rita Orphanage in Parañaque City.
2020/07	Alabel Municipal Hall Feasibility Study Prepared a feasibility study on the new municipal hall of Alabel, Sarangani.
2020/05	Outlook on Feeds and Grain Market Prepared an outlook analysis on the domestic markets for feeds and grains.
2020/01	Hotel Feasibility Study Estimated projected profits using quantitative methods on visitor, revenue, and geospatial data.
2020/01	Employee Turnover Analysis Crafted a survey to record key variables and performed statistical analysis to determine which variables affected the probability of turnover.
2019/11	Firm Profitability Analysis Obtained company time-series data on employee productivity and performed market research to determine their effects on the company's profits.

## Journal Articles

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### Empirical

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In-review	Expansionary Credit, Easy Money, and Boom-bust Cycles, 1867–1970: Causality Analysis with Impulse Response
(Macroeconomic Dynamics)	A paper testing Austrian Business Cycle Theory using time series and difference equation analysis.

## Working Papers

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### Empirical

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2021/05	Historical Climate Factors and Rice Prices in the Philippines
MSR Working Paper Series	A paper analyzing how rice prices in the Philippines have responded to historical climate factors.

## Case Studies

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### Transportation

2019/08	Developing a Provincial Destination Choice Model of the Philippines Developed a model assigning weights to factors affecting domestic traveller choice of provincial destination in the Philippines.
2019/03	Route Assignment for Travel between Metro Manila Central Business Districts Determined optimal route assignments for travelers between Makati, Ortigas, and Bonifacio Global City using linear programming methods.
2018/12	Mode Choice Analysis of New York City Undertook mode choice analysis of passenger behavior in New York City using 2017 data.
2018/08	Estimation of the Lane–Mile Elasticity of Metro Manila Traffic Estimated the magnitude of effect of road size and expansions on traffic in Metro Manila in the Philippines using linear regression methods.

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### Miscellaneous

2019/03	Is the Filipino Worker Ready for Industry 4.0? An Empirical Analysis Performed classification analysis of factors predisposing the Filipino labor market to choices of occupation.
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## Courses Taught

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### M&S Research Hub

Introductory Machine Learning Theory and Practice Intensive training on the fundamentals of Machine Learning for econometric modeling and data analysis using Julia. Bayesian Inference for Data Science and Research Introductory training for Bayesian inference theory and applications to statistical inference and regression analysis. Theoretical Foundations of CGE Modelling Training for Computable General Equilibrium models with GAMS. Recommended course by the GAMS Institute. Bayesian SVAR and Regime Switching Models Using R and Stata Special training for the theory and practice of Structural Vector Autoregressions, Bayesian Inference, and Regime Switching Models with R and Stata.
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## Software Development

WIP	Project Management and Monitoring Pipeline Software (PMMPS) Built a data pipeline that facilitates project management and monitoring for consultancy firms.
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## Positions Held

2020/12–2022/12	M&S Research Hub Academic Council
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## Formation

2024/09	Master of Science in Mathematics (in-progress) Open University, United Kingdom
2019/12	Bachelor of Science in Applied Economics, Major in Industrial Economics De La Salle University, Philippines Thesis: “Developing a Provincial Destination Choice Model of the Philippines” Advisor: Lawrence B. Dacuycuy cGPA: 3.193/4.0

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## Languages

English:	Mother Tongue
Tagalog:	Fluent
Kapampangan:	Intermediate
Latin:	Ecclesiastical Usage

## Programming Languages

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Intermediate:	Python, R, Julia, C#, $\text{\LaTeX}$ , HTML, CSS
Software Packages:	Statsmodels, PYMC3, Sckit-Learn, Theano
Operating Systems Used:	Ubuntu, Manjaro, ArtixLinux
Other Software Used:	SageMath, Stata, GAMS, OnlyOffice

## Interests and Activities

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Concentrations:	Mathematics, Statistics, Economics
Main Fields:	Probability Theory, Stochastic Processes, Regression Analysis, Transportation Research, Decision Theory
Incidental Interests:	Aristotelian Philosophy, Medieval Socioeconomic Studies

## References

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