

# Adriel Ong

## Curriculum Vitae

### TECHNICAL SKILLS

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Programming Languages:	Python, R, Julia, C#, SQL, $\LaTeX$ , HTML, CSS
R Packages:	dplyr, tidy, tidyCDISC, patientProfilesVis, clinUtils, stargazer, Hmisc
Python Libraries:	Statsmodels, PyMC3, sklearn, numpy, PyTorch, PySpark, TensorFlow
Data Visualization:	Python (Dash, Anvil), R (ggplot2)
C# Frameworks:	Avalonia UI, Entity Framework
NoSQL Databases:	ScyllaDB
Other Software Used:	SageMath, Stata, GAMS, OnlyOffice
Clinical Data Standards:	SDTM, ADaM
Treatment Outcome Analysis:	Dose Escalation, Randomized Control Trials, Registry Study.
Credit Risk Modeling:	PD, LGD, and EAD
Spatial Modeling:	Kriging, space-time, spatial autocorrelation, STARIMA, IDW, etc
Financial Modeling:	Technical Analysis, Portfolio Optimization, Returns Modeling, VaR
Machine Learning:	Neural Networks, Gaussian Mixture Modeling, Bayesian Statistics, etc

### FORMATION

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2022/06	Postgraduate Diploma in MATHEMATICS Open University, United Kingdom
2021/06	Postgraduate Certificate in MATHEMATICS 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

### POSITIONS HELD

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2020/03–2023/03	Independent Contractor Statistician Performed regression analysis, treatment effect analysis, and credit risk modelling, among others
2020/11–2022/02	Academic Council, M&S Research Hub Leadership and Teaching role; taught econometric, statistical, and probability theory Kassel, Germany

### COURSES TAUGHT

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#### M&S RESEARCH HUB

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##### *Applied Econometrics*

A program for training in Econometric Theory.

##### *Prognometrics*

A program for training in practical Econometrics using R and Python.

##### *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.

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### *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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## WORKING PAPERS

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### EMPIRICAL

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	2022/02	<i>Expansionary Credit, Easy Money, and Boom-bust Cycles, 1868-1970</i>
MSR WORKING PAPER SERIES		Analyzed long-run and causal effects of expansionary credit on American business cycles.
	2021/05	<i>Developing a Provincial Destination Choice Model of the Philippines</i>
MSR WORKING PAPER SERIES		Developed a model assigning weights to factors affecting domestic traveller choice of provincial destination in the Philippines.
	2021/05	<i>Historical Climate Factors and Rice Prices in the Philippines</i>
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

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2019/03	<i>Route Assignment for Travel between Metro Manila Central Business Districts</i>
	Determined optimal route assignments for travelers between Makati, Ortigas, and Bonifacio Global City using linear programming methods.
2018/12	<i>Mode Choice Analysis of New York City</i>
	Undertook mode choice analysis of passenger behavior in New York City using 2017 data.
2018/08	<i>Estimation of the Lane-Mile Elasticity of Metro Manila Traffic</i>
	Estimated the magnitude of effect of road size and expansions on traffic in Metro Manila in the Philippines using linear regression methods.

## MISCELLANEOUS

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

## SEMINARS ATTENDED

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2021/03	<i>The Linear Probability Model and Its Discontents</i>
	by Andrew Pua
2020/12	<i>Automation, Tasks, and Wages</i>
	by Daron Acemoglu

## REFERENCES

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Lawrence B. Dacuycuy	lawrence.dacuycuy@dlsu.edu.ph
Marites Tiongco	marites.tiongco@dlsu.edu.ph
Justin Raymond Eloriaga	eloriagajs@bsp.gov.ph
Sherif Maher Hassan	hassan@ms-researchhub.com