

Akshay Natteri Mangadu

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EDUCATION

The University of Chicago - Harris School of Public Policy

Chicago, USA

Master of Arts in Public Policy Analysis, Certificate in Research Methods

Aug. 2017 – Dec. 2018

- Masters program focusing on advanced econometric and statistical research methods in public policy analysis.
- Completed the first year of PhD coursework (Game Theory, Econometrics, and Microeconomics) at Harris.
- Recipient of **Harris-Mellon Scholarship**, GPA: 3.675/4.0.

The Chinese University of Hong Kong

Hong Kong SAR

Bachelor of Business Administration - Integrated Business

Aug. 2013 – May 2017

- Concentration in **Financial Engineering** and Minor in **Economics**, GPA: 3.68/4.0.
- Graduated with **First Class Honors** and Member of **Beta Gamma Sigma** honors society (awarded to business school students in the top 10% of the grade distribution).
- Awarded **Honours at Entrance** and received the **HKSAR Government Scholarship** for all four years.
- Placed on the **Dean's list** and **College Head's list** for three consecutive years - 2015, 2016, and 2017.
- Attended a summer program at the University of Cambridge.

TECHNICAL SKILLS

Data Analysis, Data Visualization, and Mathematical Modeling Tools

Stata (Advanced), **SAS** (Intermediate), **R** (Intermediate), **Excel VBA** (Intermediate), **Google Apps Script** (Advanced), **Python** - NumPy, Pandas, Seaborn, Matplotlib, Selenium and Plotly (Advanced), **Matlab/OCTAVE** (Advanced), and **PowerBI** (Intermediate), **Bash Scripting** (Intermediate), and **C++** (Basic).

PROFESSIONAL AND RESEARCH EXPERIENCE

Deloitte Touche Tohmatsu India LLP

Chennai, India

Senior Consultant

May 2021 - Present

- Conducted trade data analysis, charted trade maps, and identified opportunities to improve trade-connectivity for Personal Protective Equipment (PPE) in the South-Asian region. The study was conducted for a leading multilateral agency.
- Conducted a detailed analysis of domestic and export markets for Medical Personal Protective Equipment (MPPE) in Bangladesh. The study was conducted for a leading multilateral agency.
- Designed and developed project and tender monitoring dashboards for a large industrial development authority in India on PowerBI. Responsible for both the front-end and back-end of the dashboards.
- Conducted an impact measurement study to quantify the impact of industrial subsidies provided to large industries in Tamil Nadu, India.

iVEIN Consortium - Indian Institute of Technology, Madras

Chennai, India

Assistant Research Editor

Sep. 2020 - Feb. 2021

- Co-authored four articles with **Prof. Thillai Rajan A.** on angel investing, venture financing and funding of start-ups in India for the [edited publication](#) of the consortium. The articles explore key trends in venture financing in India and the evolution of the Indian angel investing landscape (Chapters 11, 12, 16 and 17).

Harris School of Public Policy - University of Chicago

Chennai, India (Remote)

Research Assistant

Apr. 2020 - Dec. 2020

- Worked with **Prof. Bruce D. Meyer** on an academic study that explores trends in quality of housing for the middle class and poor in the United States. Performed advanced statistical analyses (variants of hedonic regressions) to isolate the dollar value of housing quality over time.

Athena Infonomics

Chennai, India

Associate Consultant

Feb. 2019 - Mar. 2020

- Developed a **financial planning** tool to help utilities in developing countries analyze and assess the performance of large-scale sanitation infrastructure projects for the **Bill and Melinda Gates Foundation**.
 - * Led consultations in UK, Kenya and Zambia to understand the requirements for such a tool.
 - * Built robust financial models to project viability of service providers over a long-term horizon based on detailed analysis of the sanitation business in each region.
 - * Presented the progress at the International Water Association's Congress in Colombo.
- Analyzed survey data about the demand for piped water in Mandalay, Myanmar and co-authored a [working paper](#) about the findings, published by the **International Growth Center**.

- Designed primary survey instruments and analyzed survey data to understand the demand for retail housing loans that subsidize green homes (homes that are eco-friendly and resource efficient) for the **International Finance Corporation**.
- Co-authored an [article](#) on Development Impact Bonds which was published in the Business Standard.

Harris School of Public Policy - University of Chicago

Chicago, USA

Research Assistant

Sep. 2017 - Jan. 2019

- Served as a research assistant for a published academic study under **Prof. Bruce D. Meyer** about the impact of transfers on the well-being of the disabled.
- Helped in writing and updating the SAS codes used to run a set of Poisson regressions for the study. The paper was published in the National Bureau of Economic Research's Tax Policy and Economy Series. A more comprehensive study revolving around the same issues was published in the Journal of Public Economics.
- Worked on multiple projects dealing with the measurement of poverty and material well-being in the United States.

CUHK Economics Department

Hong Kong SAR

Junior Research Assistant

Jun. 2015 - Jul. 2017

- Served as a research assistant for **Prof. Wallace KC Mok** for a project funded by the Hong Kong Research Grants Council, aimed at providing pointers for a new approach to measuring poverty in Hong Kong.
- Researched on measuring the extent of poverty in the United States using the Panel Survey of Income Dynamics, a US household survey that tracks over 5000 households and their offshoots for more than 45 years. Analyzed income data of approximately 200,000 individuals in a given year between 1968 and 2015 from the Current Population Survey.

PROJECTS

Articles in the intersection of Data Analysis, Policy, and Business

February 2021-Present

- Author articles in the intersection of data analysis, public policy, and business. The articles are published on my [personal blog](#).
- Leverage Bayesian Statistics, Non-Parametric Multivariate Methods (such as Principal Component Analysis), and Classical Econometric Techniques in the blog articles.
- Leverage geographic data from satellites to understand trends in development/urbanization.

Performance of Politicians with Criminal Background

Harris, Jun. 2018

- Wrote a [paper](#) exploring if there were any performance differentials between politicians with criminal background and politicians without any background.
- Gathered data from various online sources about the criminal background of candidates in election and analyzed data from three parliamentary elections with over 12,500 observations in total using a regression discontinuity model.

Testing the Efficient Market Hypothesis - A Survey

CUHK, Apr. 2017

- Wrote a review [essay](#) analyzing academic studies that tested the "Efficient Market Hypothesis" using various empirical strategies.

Application of the Finite Differences Method to Value Options

CUHK, Dec. 2016

- Used Finite Differences Method (FDM) to solve for the price of European options under the Constant Elasticity of Variance (CEV) model. Wrote a [note](#) about the method.
- Wrote a [Matlab function](#) that uses the Crank Nicolson method to compute the price of a put or call option under the CEV model, with a choice of using uniform or non-uniform discretization patterns. Benchmarked code with the built in BLSPRICE command in Matlab (which is based on the Black-Scholes analytical solution) for the special case of constant variance.

RELEVANT COURSEWORK

Statistics and Economics

Statistical Theory and Methods (Graduate Level), Applied Econometrics (PhD Level), Advanced Microeconomics (PhD Level), Applied Game Theory (PhD Level), Stochastic Processes (Graduate Level) and Multivariate Statistics (Graduate Level).

Finance

Interest Theory and Finance (Undergraduate Level), Investment Analysis and Portfolio Management (Undergraduate Level), Options and Futures (Undergraduate Level), Fixed Income Securities (Undergraduate Level), Computational Finance (Undergraduate Level) and Intermediate Financial Theory (Undergraduate Level).

LANGUAGES, CITIZENSHIP

Languages - English (Bilingual Proficiency) and Tamil (Native).

Citizenship - Indian.