Sreehari Pulickamadhom Sreedhar

Policy Analysis and Economics

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Profile

I stand at the intersection of rigorous policy analysis and data science, employing intricate microsimulation models to explore variations in human behavior in response to policy interventions. My academic pursuits have encompassed studying the distributional effects of Australian tax cuts and mapping the spatial scope of social unrest, revealing patterns embedded within complex datasets. Through research work at ALGA, Mandala Partners and QuantEcon, I have honed my analytical skills and cultivated a collaborative spirit. Now, with a proven track record of leading data analysis teams, I seek to apply my expertise to pressing policy challenges, leveraging data to inform actionable strategies.

Areas of Expertise

Agent-Based Modelling - Policy Analysis - Microsimulation - Negotiation and Mediation - Statistical Analysis and Modelling - Machine Learning

Professional Experience

Modeller - **Junior Policy Advisor,** *(Australian Local Government Association)*   **Canberra, ACT** *06/2024 - Present*
- Created a knowledge base of data and modelling tools relevant to local government.
- Collaborated with Policy Directors to generate quick analyses on portfolios such as climate adaptation and Commonwealth grants.

Research Intern, *(Mandala Partners)*   **Canberra, ACT** *09/2023 - 12/2023*
- Reviewed comparative policy research to study the impact of federalism in Australian states and territories.
- Engineered estimates of indicators of quality of life, education, and healthcare through multifactor analyses and statistical modeling.
- Collaborated with partners, analysts, and engagement managers to streamline quantitative report generation.

Research Assistant, *(QuantEcon@ANU)*   **Canberra, ACT** *07/2023 - 12/2023*
- Gained hands-on experience in the use of high-performance computing and dynamic programming approaches to classical economics problems.
- Co-authored and reviewed material in the QuantEcon lecture series authored by Prof. Thomas Sargeant (NYU) and Prof. John Stachurski (ANU).
- Instructed a QuantEcon Lunch Workshop on the use of multidimensional weighting and constrained sampling in the context of spatial microsimulations of the Australian taxed population.

Lead Data Analyst, *(Amrita Vishwa Vidyapeetham)*   **Coimbatore, TN** *10/2021 - 05/2022*
- Analyzed sociological data from survey conducted as part of a joint project between the Dept. Of Food and Nutrition and Dept. of Science and Technology, Government of India.
- Developed an analytical tool to summarize and analyze semi-structured geospatial data, designed to be intuitive for use by non-technical social scientists.
- Trained field researchers in ethical data usage and the analysis of deidentified survey data.

Research Intern, *(Dr. Peter J. Kempthorne, MIT)*   **Remote** *04/2021 - 06/2021*
- Engaged in methodic analysis and aggregation of ACLED social unrest data to study spatial distributional variation of protest frequency.
- Introduced a new measure of unrest severity using measures of perceived violence and proposed a novel way to map and compare periods of social unrest using latent measures of severity and intensity.
- Joint paper accepted for presentation at Joint Statistical Meetings 2022, Washington D.C.

Education

Master of Intl. and Dev. Economics, *(Australian National University)* **Canberra, ACT** *02/2024 - Present*
Relevant topics: Microeconomic policy - Econometrics and modelling - Game theory and competition - Static and dynamic optimization - Development policy

- Explored and built accelerated Computable General Equilibrium (CGE) models using state-of-the-art optimizers and solvers
- Gained practical experience and a theoretical understanding of experimental and quasiexperimental methods to evaluate policy impacts.

Bachelor of Applied Data Analytics, *(Australian National University)* **Canberra, ACT** *02/2023 - 12/2023*
Relevant topics: Demographic cohort analysis - Regression modelling - Social network analysis - Data wrangling and mining

- Built microsimulation models to analyze spatial distribution of impacts of Stage-3 tax cuts across Australia.
- Classified and studied the behavior of suspected state-backed troll accounts on Reddit using state-of-the-art neural network classifiers and graph analysis.

Mediation and Conflict Management, *(Harvard Law School)* **Remote** *Spring 2022*
Relevant topics: Negotiation and mediation - Conflict resolution

- Gained hands-on experience in conflict mediation through classroom simulations and case study analyses

Data, Economics, and Development Policy - MicroMasters, *(MIT - JPAL)* **Remote** *02/2022 - 08/2022*
Relevant topics: Microeconomics - Econometrics - Qualitative analysis - Survey design - Development policy - Research ethics

Integ. MSc. Data Science, *(Amrita Vishwa Vidyapeetham)* **Coimbatore, TN** *08/2020 - 12/2022*
Relevant topics: Statistical modelling - Database management and design - Cryptography - Optimization - Real analysis - Linear algebra

- Transferred to ANU seeking a more policy-focused program.

Other Courses

- International Political Economy of Decarbonization - Harvard DCE
- Monetary Policy Analysis and Forecasting – International Monetary Fund (IMFx)
- Effective Leadership through Emotional Intelligence – University of Oxford (Online)
- MicroMasters in Entrepreneurship – Indian Institute of Management, Bangalore (IIMBx)

Skills

- **Languages/Frameworks:** Python, Julia, MATLAB, R, Stata, Power BI, Excel
- Econometric analysis
- Simulations and Modelling
- Data Wrangling and Mining, Pipelining and Management, Visualization and Communication
- Neural Networks and Deep Learning
- Natural Language Processing

Languages

- **English** [Native]
- **French** [Basic] - Learning
- **Hindi** [Basic]