Advait Rajagopal

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RESEARCH INTERESTS

development economics; inequality; health economics, statistical methodology, Bayesian modeling, machine learning and network analysis

EDUCATION

The New School for Social Research, New York, NY, USA

Master of Science (MS) in Economics [GPA: 3.85/4.00]

Aug 2015 - May 2018

- graduate microeconomics; macroeconomics and econometrics; maximum entropy approaches to choice and behavior; economic development; labor economics; statistical mechanics and econophysics
- Bayesian statistics and computation; classical and Bayesian machine learning; network data analysis and graph theory; probability theory; hierarchical / multilevel models; Bayesian econometrics

St. Joseph's College of Arts and Sciences, Bangalore University, India *Jun* 2011 – Jun 2014 *Bachelor of Science (BSc.) in Economics, Mathematics, Statistics* [GPA: 4.79/5.00]

- Linear algebra; real and complex analysis; numerical methods; discrete mathematics; abstract algebra; multivariate calculus and differential equations
- Probability theory; classical statistics; hypothesis testing and estimation; operations research; experimental design; optimization and statistical quality control
- Micro and macroeconomic theory; game theory; development economics; mechanism design; financial economics; mathematical economics; international trade; public finance; history of economic thought

AWARDS

The New School for Social Research, Dean's Fellowship Award

Apr 2017 - Present

The New School for Social Research, Dean's Merit Scholarship

Aug 2015 - Apr 2017

TECHNICAL SKILLS

PROGRAMMING LANGUAGES

R, Stan, Python [scikit-learn], Mathematica, Octave, LATEX, Stata

APPLICATIONS

Bayesian hierarchical models; partial pooling; MCMC sampling including Hamiltonian Monte Carlo algorithms; machine learning; variational inference; expectation maximization; panel data analysis; time series analysis; network analysis and data visualization; R package development

PUBLICATIONS

JOURNALS AND CONFERENCES

Bayesian Analysis of Randomized Controlled Trials (w. A. Pavlakis and J.K. Bautista), *International Journal of Eating Disorders*, DOI: 10.1002/eat.22928, 2018.

Multilevel modeling of Infant Mortality in India. (w. A. Pavlakis and J.K. Bautista) [revise and resubmit at the Journal of Development Studies]

The Systemic Nature of Corruption, Social Science Research Network (SSRN), 2016.

The Relationship between Infant Mortality Rate and Health Expenditure in India: A Bayesian Approach, *Social Science Research Network (SSRN)*, 2016.

Substantiation of democracy as a responsibility of the media, *Proceedings of the National Conference on Media Ethics and Social Responsibility*, [ISBN 978-81-7086-697-8], 2013.

WORKING PAPERS

The Structure of Input-Output Linkages and Economic Growth (w. J. Yang, L.D Torres-Gonzalez, F. Lafond and D. Farmer).

Caste, access to credit and social engagement: A network theoretic approach.

Corruption in licensing and the canonical social interaction model.

Bayesian hierarchical models relating growth rates, debt to GDP ratios and financial stress (w. C. Schoder).

RESEARCH AND WORK EXPERIENCE

Abdul Latif Jameel Poverty Action Lab (J-PAL South Asia), Goa, India

Jun 2018 - Present

Research Associate [The Economic Consequences of Depression]

- Work with Profs. G. Rao (Harvard University), F. Schilbach (Massachusetts Institute of Technology), J. Haushofer (Princeton University), J. de Quidt (IIES, Stockholm University) to conduct research in the field of behavioral development economics
- Lead implementation of behavioral experiments and surveys in the field, to study how depression and psychotherapy affect economic behavior like risk taking, information processing, and beliefs

Columbia University, New York, NY, USA

Oct 2017 - Present

- Develop teaching material for Bayesian Statistics and Introduction to Stan with Prof. A. Gelman and Dr.
 B. Carpenter
- Working with Prof. A Gelman, M. Morris and J. Gabry to write a book on Bayesian Statistics with Stan
- Working on contributing to RStanArm package facilitating ARIMA models

The New School for Social Research, New York, NY, USA

Research Assistant [Quantitative Reasoning Department]

Aug 2017 - Apr 2018

- Work with Prof. R. Flek
- Help develop teaching tools for statistics and probability and make reproducible Mathematica notebooks to aid the teaching of statistics

Amundi Asset Management, Abu Dhabi, U.A.E

Internship [Institutional Investment Sales Department]

Summer 2015

 Analysis for institutional investor strategies, researched the institutional market in the Middle East and helped sign new clients

TEACHING EXPERIENCE

The New School for Social Research, New York, NY, USA

Instructor [Quantitative Reasoning II: Research Methods and Data Visualization] Fall 2017 - Spring 2018

Primary instructor for the course, teach statistics, probability, and applications using Mathematica

Graduate Teaching Assistant [Advanced Microeconomics I, GECO 6200]

Fall 2016

• Instructor for the lab component of a core PhD course in microeconomics. (w.Prof. S. Reddy)

Specialist Math Tutor [New School University Learning Center]

Sep 2015 – Sep 2016

■ Taught mathematics, economics, statistics, data analysis and computing

LANGUAGES

English; Hindi; Tamil; Arabic; Bengali; Malayalam; Kannada

ACTIVITES

Member of Toastmaster's International and a Competent Toastmaster, also a trained speech evaluator

Won several debates, elocutions and extempore speaking competitions

Played basketball for St. Joseph's College and Delhi Private School Sharjah for 9 years

Chairperson and delegate at 10+ Model United Nations conferences, won Best Delegate many times

Black belt in Budokan Karate and Blue belt in Taekwon-do

INTERESTS

Riding, collecting and building motorcycles, aquascaping and fish breeding, succulent and cactus growing, basketball, swimming, playing the guitar, Pink Floyd.

REFERENCES

■ Professor Gautam Rao

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grao@fas.harvard.edu • +1-617-496-2614

■ Professor Andrew Gelman

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 $[CV\ compiled\ on\ 2019\text{-}12\text{-}12]$