# Advait R. Aiyer

Vance Hall, 3733 Spruce St., Philadelphia, PA, 19104

advaitra@wharton.upenn.edu • https://advaitr8.github.io • https://github.com/advaitr8 • +1-510-374-8955

RESEARCH INTERESTS

development economics; higher education markets; health economics; Bayesian modeling; machine learning; network analysis

**EDUCATION** 

The Wharton School of the University of Pennsylvania, Philadelphia, PA, USA

Ph.D. in Applied Economics

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

MS in Economics 2018

St. Joseph's College of Arts and Sciences, Bangalore University, India 2014

BSc. in Economics, Mathematics, Statistics

AWARDS The Wharton School, Doctoral Education Fellowship

2020-2025

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

2017

2020 -

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

2015

TECHNICAL SKILLS

#### PROGRAMMING LANGUAGES

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

#### APPLICATIONS

Bayesian hierarchical models; partial pooling; MCMC sampling methods including Hamiltonian Monte Carlo algorithms; machine learning; variational inference; expectation maximization; panel data analysis; time series analysis; network analysis; 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 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 - Jun 2020

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 Viz.] 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 (native) • Hindi (fluent) • Tamil (fluent) • Arabic (basic reading and writing) • Bengali (basic speaking) • Malayalam (basic speaking) • Kannada (basic speaking)

INTERESTS

motorcycles, aquascaping, succulents, basketball, swimming, Pink Floyd, darkpsy

# REFERENCES

# ■ Prof. Gautam Rao

Department of Economics Littauer Center M-30, Harvard University, Cambridge, MA, 02138 grao@fas.harvard.edu • +1-617-496-2614

## ■ Prof. Andrew Gelman

Department of Statistics, Department of Political Science 1016 Social Work Bldg (Amsterdam Ave. at 122 St.), Columbia University, New York, NY, 10027 gelman@stat.columbia.edu • +1-212-851-2142 / +1-212-229-5100 x3443

## ■ Prof. Johannes Haushofer

Department of Economics Stockholm University 106 91 Stockholm, Sweden johannes.haushofer@ne.su.se • +46-73-8466-854