# Ajinkya Kokandakar

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#### EDUCATION

• University of Wisconsin-Madison Ph.D. Statistics; GPA: 3.95

Madison, WI

2020 - Present

Email: ajinkya@stat.wisc.edu

Website: ajinkya-k.github.io

• Duke University

Durham, NC M.S. Economics and Computation; GPA: 3.88

2018 - 2020

• Birla Institute of Technology and Science, Pilani

B.E. Computer Science and M.Sc. Economics; GPA: 3.64 (9.11/10)

Pilani, India 2012 - 2017

## Pre-prints and Ongoing Projects

• Kokandakar, A.H., Lin, Y., Jin, S., Weiss, J., Rabinowitz, A.R., May, R.A.B., Small, D., and Deshpande, S.K. (2024), "Adolescent sports participation and health in early adulthood: An observational study". Preprint [arXiv:2405.03538]

### Publications

- Kim, E. J., Holloway T., Kokandakar, A.H., Harkey, M., Elkins, S., Goldberg, D. L., Heck, C. (2024), "Quantifying Near-Surface NO2 with Satellite Data Using Regression Methods". Journal of Geophysical Research: Atmospheres, 129, e2024JD040906, DOI:10.1029/2024JD040906
- Kokandakar, A.H., Lin, Y., Jin, S., Weiss, J., Rabinowitz, A.R., May, R.A.B., Small, D., and Deshpande, S.K. (2024), "Pre-analysis protocol for an observational study on the effects of adolescent sports participation on health in early adulthood". Obervational Studies, 10(1), 11-35. DOI:10.1353/obs.2024.a929115. [arXiv:2211.02104] (Presented as a poster at the 2023 American Causal Inference Conference, Austin TX)
- Kokandakar, A.H., Kang, H., and Deshpande, S.K. (2023). "Bayesian Causal Forests & the 2022 ACIC Data Challenge: Scalability and Sensitivity." Observational Studies, 9(3), 29-41, DOI:10.1353/obs.2023.0024. [arXiv:2211.02020]
- Challa, J.S., Goyal, P., Kokandakar, A., Mantri, D., Verma, P., Balasubramaniam, S., and Goyal, N. (2022). "Anytime clustering of data streams while handling noise and concept drift." Journal of Experimental & Theoretical Artificial Intelligence, 34(3), 399-429, DOI:10.1080/0952813X.2021.1882001.

## Research Experience

# University of Wisconsin-Madison

Madison, WI

• Research Assistant, Advisor: Dr. Sameer K. Deshpande

May 2022 - Present

- o Developed an ordered testing procedure to adaptively detect effects of multiple versions of the treatment condition
- o Developing causal inference methods for settings where the exposure is ill-defined or hard to capture
- Research Assistant, Advisor: Dr. Menggang Yu and Dr. Guanhua Chen

June 2020 - Dec 2021

o Worked on a method for the estimation of heterogeneous treatment effects that is robust to errors drawn from heavy-tailed distributions

**Duke University** Durham, NC

• Research Assistant, Dr. Matthew Masten

May 2019 — Feb 2020

- o Conducted a literature survey of methods to assess the sensitivity of the average treatment effect estimators to violations of the conditional ignorability assumption in linear models
- Research Assistant, Advisor: Dr. Giuseppe Lopomo

June 2019 — Dec 2019

- Characterized the optimal mechanism for procurement in the presence of bidders with financial externalities
- o Assisted with research including proofreading drafts of papers, verifying algebraic proofs using Maple, and solving mechanism design problems using CPLEX, AMPL and MATLAB
- Research Assistant, Advisor: Dr. Arjada Bardhi

Jan 2019 — May 2019

- Simulated Gaussian processes using the GPML toolkit for MATLAB
- o Simulated Poisson Bandit Problems to calculate discounted occupancy measures for each arm

## Work and Teaching Experience

• Mathematica Inc.

Data Science Intern

• Updated and maintained a database made available to all researchers in the organization consisting of multiple datasets containing hospital information related to hospital characteristics, price utilization, and quality measures

- o Developing a novel framework for comparison group selection for a large hospital payment model evaluation
- Developing and deploying a scalable Bayesian methods to leverage large patient-level datasets for estimating the impact of a large CMS payment model on hospital expenditure by patients

## • CALS Statistical Consulting Group

Madison, WI

June 2024 - Present

Project Assistant

• Working as a statistical consultant assisting clients from the College of Agriculture and Life Sciences with analysing their experimental data using appropriate statistical models

#### • University of Wisconsin-Madison

Madison, WI

Teaching Assistant, Department of Statistics

Aug 2023 - May 2024

- o STAT 451: Introduction to Machine Learning and Statistical Pattern Classification (Fall 2023)
- o STAT 240: Data Science Modeling 1 (Fall 2022)
- STAT 371: Introductory Applied Statistics for the Life Sciences (Spring 2022)

#### • Duke University

Durham, NC

Teaching Assistant, Department of Computer Science

- COMPSCI 370: Introduction to AI (Spring 2020)
- COMPSCI 201: Algorithms and Data Structures (Spring 2019)

# • Birla Institute of Technology and Science, Pilani

Pilani, India

Undergraduate Teaching Assistant

- o CS F211: Data Structures and Algorithms
- o ECON F412: Securities Analysis and Portfolio Management
- ECON F212: Fundamentals of Finance and Accounting
- o ECON F211: Principles of Economics

#### • Infosys Ltd.

Bangalore, India

July 2017 - May 2018

o Developed the telemetry and data analytics module for the company's internal learning platform

#### • Reserve Bank of India

Specialist Programmer

Jaipur, India

Summer Intern, Department of Statistics and Information Management

 $Summer\ 2016$ 

• Analyzed the distribution of food consumption expenditure in India and calculated the first order approximation of compensating variation associated with food price inflation for the deciles of the population based on income

### AWARDS

- 2023 Student Research Grants Competition Travel Award, University of Wisconsin-Madison
- 2018 Duke Economics Master's Scholar Award
- National Talent Search (NTS) Scholarship, India (2008)

# Extracurricular and Leadership Activities

- Vice-President and Student Seminar Organizer, Statistics Graduate Student Association, UW-Madison (2023-2024)
- Co-chair, Social Committee, Department of Computer Science, Duke University (Fall 2019)

# TECHNICAL SKILLS

R, C/C++, Python, Julia, MATLAB, SQL, Excel, LaTeX, Git