Srikar Katta

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Education

Duke University — Durham, NC
PhD, Computer Science — *August 2022 – Current*
Advisors: Cynthia Rudin, Alexander Volfovsky — *GPA: 3.9/4.00*

Temple University — Philadelphia, PA
BS, Mathematics & Computer Science — *August 2018 – May 2022*
Minors in Economics & Statistics — *GPA:3.96/4.00*

Papers

- Rudin C, Zhong C, Semenova L, Seltzer M, Parr R, Liu J, **Katta S**, Donnelly J, Chen H, Boner Z. Amazing Things Come From Having Many Good Models. ICML 2024. **Spotlight Paper** (Top 3% of submissions).
- Donnelly J*, **Katta S***, Rudin, C. Browne, E. The Rashomon Importance Distribution: Getting RID of Unstable, Single Model-based Variable Importance. NeurIPS 2023. **Spotlight Paper** (Top 3% of submissions).
- **Katta S**, Parikh, H, Rudin, C, Volfovsky, A. Interpretable Causal Inference for Analyzing Wearable Device and Sensor Data. AISTATS 2024. **JSM 2024 Biometrics Section Paper Award. ACIC 2024 Oral.**
- **Katta S**, Song E, Parikh H, Rudin C, Volfovsky A, Sun H, Westover B. Why Machine Learning Fails to Learn Your Brain Age. **1st Place, AAAI W3PHIAI 2023 Hackathon on Aging**.
- Hackett K, Yi J, **Katta S**, Giovannetti T, Jarcho J, Fareri F, Smith DV. Risk for Financial Exploitation: Characterizing the Interactive Roles of Sociodemographic, Health, and Psychosocial Variables. Submitted. **SRNDNA Open Data Award.**

Awards & Honors

Biometrics Student Paper Award, Joint Statistics Meeting ($1,000) — January 2024
1st Place Aging Hackathon, AAAI W3PHIAI ($1,000) — February 2023
Open Data Award, SRNDNA ($1,500) — September 2022
Scott Hibbs Future of Computing Award, Temple University ($600) — May 2022
Notable Mention, Disney Streaming Service Datathon — June 2021
CARAS Grant, Temple University ($4,000) — May 2021
LAURA Grant, Temple University ($2,000) — August 2019
Provost Scholarship, Temple University, ($40,000) — August 2018

Service

Session chair, INFORMS 2024: *Machine Learning Aided Causal Inference*
Reviewer: INFORMS Journal on Computing, IEEE International Symposium on Information Theory
Committee Member, Duke University CPS New Student Recruitment

Teaching Assistantships

CPS 590: Data Science, Duke University — Spring 2023, Fall 2023
STAT 3503/8109: Applied Statistics and Data Science, Temple University — Fall 2020
MATH 1031: Elements of Statistics/Data Science, Temple University — Spring 2020

Conference, Industry, and Academic Presentations

INRIA, Paris, FR (Virutal) — September 2024
Joint Statistics Meeting, Portland, OR — August 2024
American Causal Inference Conference, Seattle, WA — May 2024
Blue Cross Blue Shield, North Carolina, Raleigh, NC (Virtual) — April 2024
INFORMS Annual Meeting, Phoenix, AZ — October 2023
Joint Statistics Meeting, Toronto, CA — August 2023
INFORMS QSR, Raleigh, NC — May 2023
AAAI International Workshop on Health Intelligence, Washington, DC — February 2023

Research Experience

Duke Almost Matching Exactly Lab — Durham, NC
Drs. Cynthia Rudin, Alexander Volfovsky — *August 2022 – Current*

- Developed anomaly detection and age estimation framework, boosting disease classification accuracy by 11%
- Created new pipeline for uncertainty quantification for variable importance while guaranteeing stability, improving the variable importance reproducibility by over 25%
- Developed interpretable causal inference method for analyzing wearable device data, outperforming existing baselines in estimating heterogeneous treatment effects by over 300%

Temple Data Science Institute — Philadelphia, PA
Drs. Edoardo Airoldi, Zoran Obradovic, Ken McAlinn, Jeanne Ruane — *August 2020 – August 2022*

- Devised network algorithm that produces more realistic networks 77% of the time than existing methods
- Automated topic and network modeling analyses for 600,000+ tweets, saving 60% in reporting time
- Developed data science textbook covering estimation strategies and probabilistic models with applications in `R`

Temple Neuroeconomics Lab — Philadelphia, PA
Dr. David V Smith — *August 2018 – August 2022*

- Raised $6,000 to study the relationships between prosocial behavior and social cues using web data
- Researched decision making and financial scam susceptibility using field surveys ($N = 3000$) and lab experiments
- Trained 6 research assistants to wrangle and visualize data in R by creating and implementing 12 lesson plans

Federal Reserve Bank of Philadelphia — Philadelphia, PA
Research Intern — *May 2019 – May 2020*

- Used regression techniques to compare business' and professional forecasters' inflation expectations
- Advised policy by surveying 8,000+ local businesses on perspectives of economy and inflation levels
- Created surveys and analyzed and visualized data for 16 press releases; work cited by CNN, Reuters, and WSJ

Technical Experience

Amazon — Seattle, WA
Applied Scientist Intern — *May 2024-Current*

- Automate analyses of customer-level experimental data at scale, reducing runtime by at least 10x
- Analyzed hundreds of customer level datasets with over 9 billion observations to generate causal insights under unobserved confounding
- Derived asymptotic behavior of new estimator, enabling computation of p-values and confidence intervals

Disney+ and ESPN+, Disney — New York, NY (Remote due to COVID-19)
Data Science Intern — *May 2021 – August 2021*

- Developed python package for evaluating supervised model performance across heterogeneous subpopulations
- Improved models predicting user churn, subscription propensity, and premier-access movie upsells by up to 10%
- Designed cross-platform recommender system, winning an honorable mention in internal datathon

Dyson, Inc — Chicago, IL (Remote due to COVID-19)
People Data Science Intern — *June 2020 – August 2020*

- Predicted COVID-19 cases using machine learning methods with 6.5% error rate to guide store reopenings
- Operationalized organizational chart development using R Shiny, saving $25,000+ of work annually
- Automated HRIS data auditing using Python and developed Tableau dashboards, saving $250,000+ annually
- Collaborated with non-technical HR team to conduct global gender pay analysis to restructure compensation plans

Bureau of Labor Statistics — Philadelphia, PA
Intern — *January 2019 – May 2019*

- Analyzed Bureau of Labor Statistics and Census Bureau datasets using R, including collection methods and usage
- Researched correlates of immigrant income gap in US states to inform immigration and labor policy