

# Vikram K. Suresh

 Google Scholar |  Github |  Website |  Email |  Cell Phone

## ACADEMIC APPOINTMENTS

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<b>Research Fellow</b>	Department of Computer Science, University of Cincinnati, OH	Aug 2023 – present
<b>Visiting Adjunct</b>	Department of Economics, Lindner College of Business, University of Cincinnati, OH	Aug 2023 – present

## EDUCATION

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2017 - 2023	PhD, Business Administration - Economics at Lindner College of Business, University of Cincinnati, OH
2016 - 2017	M.S., Applied Economics at Lindner College of Business, University of Cincinnati, OH
2014 - 2015	M.Ed., Sports Administration at Xavier University, OH
2008 - 2012	B.S. Hons, Mechanical Engineering at Birla Institute of Technology and Science, India

## RESEARCH INTERESTS

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Bayesian Inference, Applied Microeconomics, Inequality

## TEACHING INTERESTS

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Introductory Micro & Macro, Introductory and Exploratory Data Analysis using R/Python/Julia, Business Statistics, Bayesian Inference using Parametric Models, Time Series Methods, Research Design and Causal Methods

## MANUSCRIPTS AND PROJECTS IN PROGRESS

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- **Is the Golden Ticket Tainted? Testing Standardized Tests with AI (Under Review at *The Economic Journal*)**  
Large-scale assessment of standardized test quality requires item-level response data that is rarely available to researchers. We develop a methodology using Large Language Models (LLMs) as synthetic examinees to estimate Item Response Theory parameters without human response data.
- **Aggregating Global Evidence on Conditional Cash Transfers using Bayesian Hierarchical Meta-Analysis**  
Conducts a Bayesian hierarchical meta-analysis of Conditional Cash Transfers to identify which institutional or cultural contexts enable successful intervention transferability.
- **Structural Estimation of Hedonic Flattening using Expressed Preference Data**  
Develops a Bayesian Hierarchical Random Utility Model to estimate hedonic flattening using affective stimulus-response data collected via picture-rating tasks.
- **Efficient Treatment Effect Estimation in Small-Sample Experimental Panels**  
Demonstrates that autoregressive and log-trend models improve estimation efficiency by 30-40% in small-sample experimental panels relative to standard approaches, with applications to intervention evaluation and meta-analysis.
- **Skill Substitution in an AI Economy**  
Develops a simple framework of skill substitution in the labor market as AI technologies become more

prevalent and discusses implications of AI adoption.

- **Identifying Impact of Road Funding on Road Quality in Ohio using Image-based ML Techniques**

Fine-tunes YOLOv11 and segmentation models on RDD2024 road images to detect blemishes over time on Ohio roads and estimate the causal effect of state funding on local road quality.

TEACHING EXPERIENCE

Course	Title	Years	Modality	Rating
ECON1001	Introduction to Microeconomics (Undergrad)	2020–present	In-person & Online	7.4/8
ECON1002	Introduction to Macroeconomics (Undergrad)	2020–present	In-person & Online	7.7/8
ECON3083	Economy of China (Undergrad)	2020–2022	In-person & Online	7.9/8
ECON4010	Introduction to Econometrics (Undergrad)	2020–present	In-person & Online	7.7/8
ECON5010	Topics in Econometrics (Undergrad/Master)	2020–2023	In-person	7.8/8

PUBLICATIONS

1. **V. Suresh K**, S. Rawat. Diverging opinions on standardized testing: A survey-based approach. *Economics Letters* **250**, 112292. ISSN: 0165-1765. <https://www.sciencedirect.com/science/article/pii/S0165176525001296> (2025).

MANUSCRIPTS UNDER REVIEW

- **Artificial Test-Takers as Transformed Controls: Measuring SAT Difficulty Drift and Student Performance (Revise and Resubmit at *Frontiers in AI*)**  
The project extends *Synthetic Control* methods by using AI to develop counterfactuals by having OpenAI’s GPT-4 and Anthropic’s Claude 3.5 Sonnet models evaluate the SAT math exam from 2008-2023. Click [here](#) to listen to an AI summary.

CONFERENCE PRESENTATIONS

- **GPT Takes the SAT: Tracing Changes in Test Difficulty and Students’ Math Performance**  
North American Summer Meeting of the Econometric Society, Nashville, TN, June 16, 2024 (with S. Rawat).  
Ohio Association of Economists and Political Scientists, Denison University, Granville, OH, 2024 (with S. Rawat).  
Midwest Economics Group, Louisville, KY, 2024 (with S. Rawat).
- **Unifying Frameworks for Reward–Aversion Judgement: A Bayesian Analysis**  
BayesiaLab Conference, Cincinnati, OH, April 12, 2024.
- **Harnessing the Power of Bayesian Hierarchical Modelling: Implications for Clinicians**  
Computational Psychiatry (Clinical Perspectives), American Academy of Child and Adolescent Psychiatry 68th Annual Meeting, Atlanta, GA, October 29, 2021.
- **Posterior Density Ratio Test for Serially Correlated Error Terms**  
East China Normal University–University of Cincinnati Symposium, October 2019 (with J. A. Mills).
- **Posterior Density Ratio Test for Serially Correlated Error Terms**  
Midwest Econometric Group Meeting, Ohio State University, October 2019 (with J. A. Mills).

## SKILLS

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<b>Programming</b>	Julia Language, Python, R, Matlab, LaTeX, Version Control - Git, Bash
<b>Methods</b>	Bayesian Inference, Causal Inference, Research Design, RCTs
<b>Machine Learning</b>	Predictive Modeling, NLP
<b>Digital Suites</b>	Qualtrics, AI suites: ExpectedParrot

## ACADEMIC SERVICE

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**Reviewer** Journal of American Academy of Child and Adolescent Psychiatry (AACAP), Frontiers in Education, International Journal of Educational Development.

## REFERENCES

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- **Dr. Jeffrey Mills**  
Professor of Economics  
Lindner College of Business, University of Cincinnati  
millsjf@ucmail.uc.edu, 513-556-2619
- **Dr. Olivier Parent**  
Professor of Economics  
Lindner College of Business, University of Cincinnati  
parentor@ucmail.uc.edu, 513-556-3941
- **Jeffrey Strawn, MD**  
Professor, Psychiatry and Behavioral Neuroscience  
College of Medicine, University of Cincinnati  
strawnjr@ucmail.uc.edu, 513-558-7700
- **Hans C Breiter, MD**  
Professor, Computer Science and Biomedical Engineering  
College of Engineering and Applied Sciences, University of Cincinnati  
& Massachusetts General Hospital, Harvard University  
breitehs@ucmail.uc.edu