Karthik Babu Nattamai Kannan

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Employment and Affiliations

Southern Methodist University, Cox School of Business – ITOM
Assistant Professor of IT and Operations Management	8/2019-current
Faculty Affiliate, Center for Scientific Computation (CRC)	8/2019-current
Faculty Affiliate, Data Science Institute (DSI)	8/2023-current
Donna Wilhelm Research Fellow - SMU DataArts	11/2019-05/23
Maneframe III planning committee, CRC	4/2022-6/2022
Instructor of IT and Operations Management	8/2018-7/2019

National Telecommunications and Information Administration (NTIA)
Merit Reviewer	10/2021-3/2022

Georgia Institute of Technology, Scheller College of Business – ITM
Graduate Research Assistant	8/2012-8/2018
Tata Consultancy Services	6/2002-12/2011

Consulting: Telecom companies in the USA, The Home Depot, Johnson and Johnson, GE, Citigroup

Papers under review

1. **[Data caps] Can Improvements to Mobile Internet Service Help Address Digital Inequality? An Empirical Analysis of Educational and Overall Data Consumption-** with Eric Overby and Sri Narasimhan
   - SSRN link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4173558
   - Under 4th round review at *Management Science*
   - Presentations: UT-Dallas, City University of Hong Kong*, George Mason University, University of Houston, Clemson University, Iowa State University, IDEaS Short Talks at GT*, Conference on the Digital Economy (ISB)*.CIST, Statistical Challenges in Electronic Commerce Research*.

Working papers

1. **[Online Learning] The Impact of Online Learning on Digital and Non-Digital Supplemental Learning Products: A Comparative Empirical Analysis** with Wayne Taylor
   - SSRN link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4173547
   - Revising for resubmission to *Management Science*
   - Presentations
     - i. Conference on Artificial Intelligence, Machine Learning, and Business Analytics in December 2023.
     - ii. MISQ Author development workshop in June 2023.
     - iii. 2022 Marketing Science annual conference.
2. **[COVID Recovery] Managing Supply and Demand for the Performing Arts in the Post-pandemic New Normal (solo-authored paper)**
   - SSRN link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3970201
   - Revising for resubmission to *Journal of Marketing*
   - Grants:

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* Presented by co-authors.

  i. Received a grant of $5,000 from Marketing Science Institute (MSI) in December 2021.

  ii. Data collection is supported by a special grant from the National Endowment for the Arts (NEA) to help performing arts organizations recover after the COVID-19 crisis.

- Media coverage and presentations:
  - i. 2023 POMS Annual Conference. Invited presentation at SMU Data Science Institute (March 2022), Auburn University (October 2021)
  - ii. Webinar addressed to ~200 practitioners from arts organizations planned for Feb 2022
  - iii. SMU DataArts Blogs (~2500 page views as of Dec 2023)
    1. https://www.culturaldata.org/pages/attendance-prediction/
    2. https://culturaldata.org/pages/attendance-prediction-june2022/
    3. https://culturaldata.org/pages/attendance-prediction-spring2022/

3. **[Infrastructure Access] Leveraging Public Facilities to Improve Access to Performing Arts Facilities: An Empirical Analysis**- with Sri Narasimhan
   - SSRN link: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4335917
   - Revising for resubmission to *Journal of Marketing*
   - Presentations: COX ITOM brown bag seminar in May 2023, Marketing Science DSI conference @ SMU, March 2023; 2022 INFORMS annual conference. Scheduled for 2023 POMS Annual Conference.

4. **[DDD] Data-Driven Decision Making in US Non-Profit Sector: A quasi-experimental analysis (solo-authored paper)**
   - Preparing to submit to *Information Systems Research*.
   - Presentations: Bloomberg Foundation (2023), POMS 2022.

5. **[Digital Programming] Does Digital Programming in the Performing Arts Industry Improve Audience Diversity?** - with Young-Woong Park, Zannie Voss, and Glenn Voss:
   - Status: Revising based on the feedback received from MISQ.

Research Interests

Economics of digitization and AI in education and cultural sectors
Location analytics: Retail site selection and market optimization.

Education

Scheller College of Business, Georgia Institute of Technology	Atlanta, GA
Ph.D. in Information Technology Management	August 2018
College of Engineering, Guindy - Anna University	Chennai, India
Bachelor of Engineering, Mechanical Engineering	1998-2002

Methodologies

Econometrics, natural and field experiments
Machine/Deep Learning and AI

Conferences, Workshops, and Invited Presentations

AI, ML, and BI conference, Fox School of Business	December 2023
MISQ Reviewer development workshop	November 2023
MISQ Author development workshop	June 2023
Marketing Science DEI conference, SMU	March 2023

INFORMS Annual Conference	October 2022
Marketing Science Conference	June 2022
Production and Operations Management Conference, Virtual	April 2022
SMU Data Science Institute, university-wide seminar	March 2022
SMU Research Computing Day	March 2022
Workshop on Information Systems and Economics (WISE), Austin, TX	December 2021
ICIS Junior Faculty Consortium, Austin, TX	December 2021
Auburn University (invited seminar)	October 2021
Workshop on Information Systems and Economics (WISE), Virtual	December 2020
INFORMS Annual Meeting, Virtual	November 2020
University of Texas, Dallas (invited seminar)	February 2020
City University of Hong Kong, Hong Kong	June 2019
Conference on the Digital Economy, Indian School of Business, India	December 2018
IDEaS Short Talks and Networking Social, Georgia Tech, Atlanta	December 2018
Workshop on Information Systems and Economics (WISE), SFO, CA	December 2018
Conference on Information Systems and Technology (CIST), Phoenix, AZ	October 2018
Statistical Challenges in Electronic Commerce Research, Rotterdam	June 2018
School of Business, George Mason University, Fairfax, VA	January 2018
C. T. Bauer College of Business, University of Houston, Houston, TX	January 2018
College of Business, Clemson University, Clemson, SC	January 2018
Cox School of Business, Southern Methodist University, Dallas, Texas	January 2018
Ivy College of Business, Iowa State University, Iowa	October 2018
Loyola Marymount University, Los Angeles	October 2017
Conference on Information Systems and Technology (CIST), Houston, TX	October 2017
INFORMS Annual Meeting, Houston, TX	October 2017
Workshop on Quantitative Marketing and Structural Econometrics, St. Louis, MO	July 2017
Deep Learning Workshop, Atlanta, GA	April 2017
Diversity and Inclusion Workshop, Atlanta, GA	March 2017
Workshop on Information Systems and Economics (WISE), Dublin, Ireland	December 2016
Conference on Information Systems and Technology (CIST), Nashville, TN	November 2016
INFORMS Annual Meeting, Nashville, TN	November 2016
Production and Operations Management Conference, Orlando, FL	May 2016
Winter Conference on Business Intelligence, Snowbird, Utah	March 2016
NBER workshop on Digitization, Stanford, CA	March 2016
ISMS Marketing Science, Baltimore, MD	July 2015
NBER workshop on Digitization, Stanford, CA	March 2015
Northwestern-Duke Causal Inference Workshop, Chicago, IL	July 2014
INFORMS Annual Meeting, San Francisco	November 2014
Winter Conference on Business Intelligence, Snowbird, Utah	March 2014

Teaching

Instructor of record
- SMU
    - ITOM6265 – Database Management (~100 students in 3-4 sections)
    - ITOM6214 – Advanced Decision Modeling (~40-60 students in 1-2 section)

- Georgia Tech
  - Business Analytics - developed and taught this new undergraduate course
    - Fall 2014, 2015
    - Spring 2017, 2018

Teaching Assistant at Georgia Tech
- Summer 2018 – Head TA for GT Online MS Analytics course 'Data Analytics for Business' for about 500 students.
- Business Intelligence, Business Analytics, Business Programming, Introduction to MIS

Awards and Service

- Nominated by students for the "Honoring Our Professors' Excellence" award in April 2023.
- Served as session chair in the 2022 INFORMS Annual conference for the session on advanced location models
- Served on the search committee for the DataArts Research Director (November 2022 – Jan 2023)
- Served as a committee member representing the Meadows School of Arts for the Data Science Cluster Hire working group (Summer of 2022)
- Maneframe III planning committee, Center for Scientific Computation (CRC) – 2021-2022
- Received a grant of $5,000 from Marketing Science Institute (MSI) in December 2021.
- Grant reviewer for President Joe Biden's broadband infrastructure development plan. As part of this process, I utilize my expertise in how internet connectivity impacts social and economic inequality to evaluate grant proposals for the National Telecommunications and Information Administration's (NTIA) different broadband connectivity programs. These programs aim to provide cost-effective, high-speed internet services to rural areas and underserved communities.
- Recipient of "C. Jackson Grayson Endowed Faculty Innovation Award"
- Served as anonymous referee for
  - MIS Quarterly – Since 2023
  - Management Science – Since 2020
  - Production and Operations Management – Since 2021
  - Information Systems Research – Since 2019
  - Journal of Database Management – Since 2019
  - Electronic Commerce Research – Since 2016
  - Conference on Information Systems and Technology (CIST) - Since 2013
  - International Conference on Information Systems (ICIS) – Since 2013
- Program committee member for Pre-ICIS SIGBPS 2019 Workshop on Blockchain and Smart Contract
- Recipient of scholarship to attend Esri's Leadership Workshop on Location Analytics in Business
- Session chair for social media analytics at INFORMS 2017
- Session chair for Conference on Information Systems and Technology (CIST), 2016
- Recipient of President/Dean's Fellowship at Georgia Tech

Technical Skills

Statistical packages and tools – Stata, R, SAS, Matlab
Big Data tools – Spark, Hadoop, Hive, Pig
Programming languages – Python, Java, D3, SQL
Operating Systems – Mac OS, Unix, Windows

Professional Affiliations

IEEE, Association of Information Systems, INFORMS