Teja Konduri

SOUTH BEND, IN 46637 • krishnateja128@gmail.com • (574) 220-4841 • www.linkedin.com/in/tejakonduri

SUMMARY

- Empirical Economist with 7 years of research experience specializing in econometrics and quantitative methods.
- Demonstrates proficiency in utilizing analytics-based methodologies and formal models from economic theory, particularly in applied time series and macroeconometrics.
- Proficient in R and Python, with hands-on experience in machine learning, time series analysis, and data management.
- Recognized for outstanding academic performance in Bayesian Time Series Analysis and Optimization Techniques.

SELECTED EXPERIENCE

Economics Researcher, *University of Notre Dame, Notre Dame, IN* Jun 2020 – Present

- Leveraged advanced time series methodologies, including Structural Vector Autoregressions (SVAR), Local Projections (LP), Principal Component Analysis (PCA), and Machine Learning forecast models to deepen the understanding of macroeconomic phenomena and oil market dynamics.
- Performed extensive exploratory data analysis on many cross-sectional and time-series datasets, utilizing data visualization techniques to uncover and articulate causal mechanisms effectively.

Graduate Teaching Assistant, *University of Notre Dame, Notre Dame, IN* Jun 2019 – Present

- Facilitated course preparation and grading for Statistics for Economics, Principles of Microeconomics, and Principles of Macroeconomics while supporting students through recitations and programming tutorials.

Economics Intern, *Amazon.com, Bellevue, WA* Jun – Oct 2023

- Developed an SVAR model to assess the impact of supply shocks on marketplace dynamics.
- Utilized Bayesian estimation, State Space modeling, and Gibbs sampling methods to enhance model accuracy.
- Collaborated closely with business intelligence engineers to identify available data sets and consulted with data scientists to develop tailored SQL queries in Amazon Redshift for data extraction, transformation, and loading (ETL).
- Presented the internship's key findings to a diverse audience at the "Amazon Economics Intern Showcase," effectively communicating the project's relevance and implications for economists and business stakeholders.

Research Associate, *Indian Institute of Management, Bangalore* May 2016 – Jul 2019

- Collaborated with three professors across two universities in India and the USA on a corporate finance research paper.
- Developed data collection and management skills by creating a last name to caste mappings database using Indian matrimonial data.
- Computed boardroom caste homophily index for over 10,000 Indian firms and predicted the likelihood of mergers between similar firms. Designed and implemented a complex R program to reduce run time from 30 days to 6 hours.
- Successfully presented our research paper at a university seminar and an academic conference, demonstrating strong public speaking and presentation skills.

EDUCATION

PhD in Economics, *University of Notre Dame, Notre Dame, IN* Jun 2024 (Expected)

- Thesis Research: *"Macroeconomic Dynamics after oil price shocks and big-data forecasting"*
  - Investigated the response of the unemployment rate of US states after structural oil supply and demand shocks by analyzing monthly data for 43 years using local projections. A 10% increase in oil prices on the impact of an oil supply shock increases unemployment by 0.5 pp after two years, while oil demand shocks reduce the same by 1 pp.
  - Compared the monthly Pseudo Out Of Sample forecasts for various economic indicators using econometric and machine learning models. Machine learning models outperform standard time series models for real variables, while prices and stock indices are hard to forecast using ML models.

MA in Economics, *University of Notre Dame, Notre Dame, IN* Jan 2023

MS in Quantitative Economics, *Indian Statistical Institute, Delhi* Jan 2018

BE (Honors) in Computer Science, *Birla Institute of Technology and Science – Pilani, Hyderabad* Jul 2014

HONORS AND AWARDS

- Graduate Fellowship, 2019-2023, *University of Notre Dame, Notre Dame, IN*
- Graduate Fellowship, 2015-2017, *Indian Statistical Institute, Delhi*

RELEVANT SKILLS

Data Analysis: *R (Tidyverse, data.table, ggplot), Python (Pandas, Numpy)*
Statistical Modeling: *Python (NumPy, SciPy, Scikit-learn), Julia (Dynamic Programming, Optimization)*
Machine Learning: *Decision Trees, Random Forests, SVM, AdaBoost, XGBoost, Gradient Boost, kNN*
Computer Skills: *Git, MATLAB, MS Office (Excel, Word, Powerpoint, Projects), SQL, Jave, C, and C++*
Course Work: Bayesian Time Series Analysis (Grade: A), Optimization Techniques (81%), Real Analysis (88%)
Interests: Time Series Forecasting, Machine Learning, Market Analysis, Problem Solving, Age of Empires