

AAKRITI KUMAR

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EDUCATION

- PhD in Cognitive Science** *2018 - 2023 (expected)*
University of California, Irvine
Advisor: Jeffrey N. Rouder
- MS in Statistics** *2018 - 2020 (expected)*
University of California, Irvine
- BTech in Metallurgical and Materials & Engineering** *2011 - 2015*
Minor in Operations Research
Indian Institute of Technology, Madras

ACADEMIC PROJECTS

Individual Differences in Cognitive Control Advisor: Jeffrey N. Rouder
Graduate Student, University of California, Irvine *Sept'18 – Present*

- Investigating whether inhibition or cognitive control is a domain-general, unified process that mediates several different actions, tasks, or, alternatively, there is no such unified process
- Developing Bayesian hierarchical factor models to separate trial noise from other covariation in low-signal, high-noise inhibition task data
- Designing new inhibition tasks that produce a large degree of individual differences
- Developed hierarchical models that account for variation across trials, variation across individuals, and covariation across individuals and tasks
- **Preprint:** Rouder, J., Kumar, A., & Haaf, J. M. Why Most Studies of Individual Differences With Inhibition Tasks Are Bound To Fail

Game Theory and Supply Chain Optimisation Advisor: Dr. R. R. Marathe, Dr. N. Sudarsanam
Research Associate, Indian Institute of Technology, Madras *Mar'17 – May'18*

- Work aimed at modelling supply chain dishonesty that arises due to information asymmetry in the system
- Bayesian belief networks facilitate learning using signals exchanged after every game play. Updated beliefs were used to predict optimal decisions at every time period
- **Conference Presentation:** Jaimini Bhattacharya, Aakriti Kumar, Rahul R Marathe, G. Srinivasan, Contracting with a dishonest retailer under asymmetric demand information, XXI Annual International Conference of the Society of Operations Management

RELEVANT COURSEWORK & SKILLS

- **UCI** - Stats Method I - II - III (210, 211,212), Bayesian Cognitive Modelling (Psych 214)
- **IIT Madras** - Operations Research, Advanced Operations Research, Computer Simulation
- **NPTEL**¹ - Theory of Computation, Introduction to Algorithms and Analysis, Graph Theory
- **Programming Languages** - Python, R

INDUSTRY EXPERIENCE

¹National Programme on Technology Enhanced Learning, an e-learning project funded by the Ministry of Human Resource Development; Courses offered by IITs. Courses are allowed to be credited by colleges across India

Associate Program Manager, Ola cabs²*Corporate Strategy & Process Excellence*

Bangalore, India

Jun'15 - Aug'16

- Ola Airport Pickup (Bangalore, Mumbai) : Designed a process for smooth passenger and driver movement as part of a 4 member team. Built computer simulations to elucidate requirements of drivers based on flight timings and booking history. Worked with the product team to add driver side demand based alert features on the app
- City Revamp (Bangalore, Mumbai): Identified gaps in driver onboarding process. Reduced turnaround time by 30%
- Ola Store - City Manager(Chennai): Led a team of 40 to launch operations of hyperlocal delivery services arm

Intern, Quetzal Online Pvt. Ltd.³*Startup*

Mumbai, India

May'14 - Jul'14

- Part of team that designed a resume parser which helped users extract relevant candidate information from every file format (Python)

Vocational Trainee, Tata Steel Ltd.*Primary Steel Making Unit*

Jamshedpur, India

May'13 - Jul'13

- Analysed the effect of addition of sintered dolomite on slag chemistry and its effect on ladle life

Teacher & Mentor, PACE Pvt. Ltd.*Training Center*

Mumbai, India

May'12 - Jul'12

- Taught Mathematics and Physics to 50 high school students and mentored 10 girl students preparing for careers in engineering

SCHOLASTIC ACHIEVEMENTS

- Awarded the Graduate Dean's Recruitment Fellowship 2018, UCI (Total Award: \$10,000)
- Placed in the top 0.5% in IIT-JEE (year 2011) with an All India Rank of 2650
- Ranked 41st in the Junior Mathematics Olympiad conducted across 850 schools in 2009
- Ranked 62nd (year 2008) and 132nd (year 2007) in the All India Maths Talent Search Examination conducted by Indian Institute for Studies in Mathematics
- Standardised Test Scores: GRE Quantitative 170/170, Verbal 157/170, Analytical Writing 4/6; TOEFL 115/120

²an Indian cab hailing platform, currently valued at \$7 Billion

³an Indian recruitment consultant platform