KUSHAGRA GUPTA

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EDUCATION

The University of Texas at Austin *Aug 2023 - Present*
Ph.D. in Electrical and Computer Engineering
Advisors: David Fridovich-Keil, Ufuk Topcu

Indian Institute of Technology Delhi (IIT Delhi) *Jul 2019 - May 2023*
Bachelor of Technology in Mechanical Engineering **GPA: 9.212/10**
Thesis Advisors: Souvik Chakraborty, Shaurya Shriyam **Rank: 5/89**

RESEARCH INTERESTS

My primary research interests lie at the intersection of **game theory**, **optimization**, **machine learning** and **control theory**. I am driven to work on both theoretical problems as well as on practical applications in these fields.

FIRST-AUTHOR PUBLICATIONS

1. **K. Gupta***, S. Murthy*, M. Karabag, U. Topcu, D. Fridovich-Keil. Cooperative Bargaining Games Without Utilities: Mediated Solutions from Direction Oracles, *Advances in Neural Information Processing Systems (**NeurIPS**) 2025*
   Publication Topics: game theory, machine learning theory, optimization
2. **K. Gupta**, R. Allen, D. Fridovich-Keil, and U. Topcu. More Information is Not Always Better: Connections between Zero-Sum Local Nash Equilibria in Feedback and Open-Loop Information Patterns, *IEEE Control Systems Letters (**IEEE L-CSS**)*, 2025
   Publication Topics: game theory, optimization, control theory
3. **K. Gupta**, D. Fridovich-Keil, Iterative LQ Games for Occlusion Motion Planning, *Conference on Robot Learning Workshop on Strategic Multi-Agent Interactions: Game Theory for Robot Learning and Decision Making **(CoRL, Workshop)***, 2022
   Publication Topics: game theory, optimization

RELEVANT GRADUATE-LEVEL COURSEWORK

Optimization: Convex Optimization, Nonlinear Programming
Probability: Probability and Stochastic Processes, Concentration Inequalities, Statistics
Analysis: Real Analysis, Introductory Functional Analysis
Machine Learning: Statistical Learning Theory, Reinforcement Learning, Deep Learning
Control & Game Theory: Dynamic Game Theory, Linear Systems, Optimal Control

PROFESSIONAL REVIEWING ACTIVITIES

ICLR, L4DC, ICRA, IROS, IEEE TAC, IEEE L-CSS, IEEE CDC

TECHNICAL SKILLS

Programming Languages Python, Julia, MATLAB
Tools and Softwares ROS, Gazebo, Simulink, Solidworks
Software Libraries JAX, PyTorch, TensorFlow, SciPy, Pandas, NumPy