Shivam Gupta

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EDUCATION

University of Texas at Austin   Aug 2018 – May 2024 (Expected)
Ph.D. in Computer Science (Advisor: Eric Price)
Coursework: Probability and Stochastic Processes, Learning Theory, Coding Theory, Theoretical Statistics, Randomized Algorithms, Markov Chains and Mixing Time, Numerical Linear Algebra, Wireless Networking
Teaching assistant for Computer Programming (Fall 2018), Data Analytics (Spring 2019), Machine Learning (Summer 2019, Fall 2019), Algorithms & Complexity (Spring 2020), Sublinear Algorithms (Fall 2020)

University of Illinois at Urbana-Champaign
B.S. in Computer Science, Minor in Mathematics   May 2018
Research with Ruta Mehta (Algorithmic Game Theory), Chandra Chekuri (Approximation Algorithms), Andreas Kloeckner (Scientific Computing)

APPOINTMENTS

Massachusetts Institute of Technology   *Cambridge, MA*
Visiting Student (Supervisor: Sam Hopkins)   Jun 2023 – Present

University of California, Berkeley   *Berkeley, CA*
Visiting Student Researcher (Host: Jelani Nelson)   Aug 2022 – May 2023

Sigma Computing, Inc.   *San Francisco, CA*
Research Intern   May 2022 – Aug 2022

University of Wisconsin, Madison   *Madison, WI*
Research Intern (Supervisor: Ilias Diakonikolas)   May 2020 – Aug 2020

Jane Street   *New York, NY*
Software Developer Intern   May 2016 – Aug 2016

Bloomberg L.P.   *New York, NY*
R&D Intern   May 2015 – Aug 2015

PUBLICATIONS

Shivam Gupta, Aditya Parulekar, Eric Price, Zhiyang Xun. **Faster Provable Sampling for Score-Based Diffusion**. *Submitted to NeurIPS 2023*

Shivam Gupta, Jasper C.H. Lee, Eric Price, Paul Valiant. **Minimax-Optimal Location Estimation**. *Submitted to NeurIPS 2023*

Shivam Gupta, Jasper C.H. Lee, Eric Price. **Finite-Sample Symmetric Mean Estimation with Fisher Information Rate.** *COLT 2023*

Shivam Gupta, Jasper C.H. Lee, Eric Price. **High-dimensional Location Estimation via Norm Concentration for Subgamma Vectors.** *ICML 2023*

Shivam Gupta, Jasper C.H. Lee, Eric Price, Paul Valiant. **Finite-Sample Maximum Likelihood Estimation of Location**. *NeurIPS 2022*

Yu Cheng, Ilias Diakonikolas, Rong Ge, Shivam Gupta, Daniel Kane, Mahdi Soltanolkotabi. **Outlier-Robust Sparse Estimation via Non-Convex Optimization.** *NeurIPS 2022*

Shivam Gupta, Eric Price. **Sharp Constants in Uniformity Testing via the Huber Statistic.** *COLT 2022*

Shivam Gupta, Ruta Mehta. **Nash Equilibrium Computation in Resource Allocation Games.** *AAMAS 2018*

SELECTED AWARDS

• C.W. Gear Outstanding Undergraduate Student Award 2018
• *C*onference Travel Grant 2018 (for travel to AAMAS)
• Horace and Kate King Wu International Undergraduate Scholarship 2018
• Illinois Engineering Achievement Scholarship 2017
• NTT Data, Inc., Scholarship 2015, 2016
• Franz Hohn and J.P. Nash Scholarship 2015 (for research in scientific computing)
• Perfect score in the Indian National Olympiad in Informatics, and selected as one of 26 students in India to attend the International Olympiad in Informatics training camp 2014
• ACM ICPC Mid-Central Regional: Team placed 6th in 2017, 4th in 2016
• Represented India in the SEARCC Software Competition 2013, Colombo, Sri Lanka, and placed 3rd
• Placed 2nd in Dropbox Open programming contest 2015 at UIUC
• Won Bloomberg CodeCon Challenge and invited to CppCon 2015 in Bellevue, Washington
• Won 3Red Trading Tech Challenge in 2015 and 2016 and invited to Chicago

LANGUAGES   C/C++, Python, Java, OCaml, Haskell, JavaScript, HTML, CSS