Mriganka Basu Roy Chowdhury

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Education

University of California, Berkeley *Aug 2021 – Dec 2025*
Ph.D. in Statistics (advised by Shirshendu Ganguly)

- Random graphs, Gibbs measures, spin systems.
- Thesis: *Four Perspectives on Gibbs Measures*.
- **Jim Pitman Award** (previously, Department Citation in Probability).

Indian Institute of Technology, Guwahati *2017 – 2021*
B.Tech. in Mathematics and Computing, GPA ***9.96/10***

- President of India Gold Medal (highest GPA in the graduating batch).

Professional Work

Cubist Systematic Strategies, Point72 *Feb 2026 – Aug 2026*
Research Analyst

- Alpha research, long and short horizon, large-scale datasets.

Citadel Securities *Summer 2025*
Quantitative Researcher Intern (Systematic Equities)

- Risk models; large neural networks on terabyte-scale market data, distributed training on a cluster of GPUs.

Sprinklr *Summer 2020*
Product Engineering Intern

- Auto-completion and phrase prediction algorithms; deployed for real-time use.
- https://github.com/mbrc12/auto-suggest/

Google Summer of Code *with* Typelead *Summer 2018*
Intern

- Purity and nullability static analysis for JVM (Java) bytecode (written in Haskell).
- https://github.com/mbrc12/etanol/

Accepted Publications

Full list with other preprints and abstracts: mriganka.xyz/research

1. Gaussian to log-normal transition for independent sets on a percolated hypercube (*2026, 2024*[†])
Random Structures & Algorithms, link · with *Shirshendu Ganguly, Vilas Winstein*

2. Characterizing Gibbs states for area-tilted Brownian lines (*2025, 2023*[†])
Annals of Probability, link · with *Pietro Caputo, Shirshendu Ganguly*

3. Universality in prelimiting tail behavior for regular subgraph counts in the Poisson regime (*2025, 2023*[†])
Electronic Journal of Combinatorics, link

[†] = *preprint year*

Selected Achievements

- **ICPC World Finals 2020** *(Moscow, Russia)*: team `I_See_AC`.
- **IIT JEE 2017**: Mains 345 of 1.3M; Advanced 1012 of 0.22M.
- **Olympiads**:
  - Indian National Mathematical Olympiad 2015
  - Indian National Olympiad in Informatics 2014–16 (IOI camp)
  - Asia Pacific Informatics Olympiad 2015 (**bronze** medal).
- **Google CodeJam**: Round 2 2019 (287th); Round 3 2018 (423rd).
- **Microsoft Q# Contest**: 15th in finals, 1st in warmup.
- **CodeChef SnackDown 2015**: 8th, world finals.