

Education

- 2024–
Current **Stanford University**
PHD IN OPERATIONS RESEARCH
Advisor: Prof. Vasilis Syrgkanis
Research Interests: ML & Statistics (estimation theory, efficiency, robustness); Causal Inference (methods; identification & estimation); Online Learning & Bandits (provable guarantees, data-adaptive exploration); GenAI Evaluation (formal frameworks, benchmarks).
- 2021–2023 **Indian Institute of Science, Bangalore**
M.TECH(RESEARCH) COMPUTER SCIENCE
Advisor: Prof. Siddharth Barman
Thesis [↗](#) - Bandit Algorithms: Fairness, Welfare and Applications in Causal Inference.
- 2014–2018 **Birla Institute of Technology and Science, Pilani**
B.E.(HONS.) ELECTRICAL AND ELECTRONICS

Experience

- 2023-2024 **Microsoft Research, Bangalore**
RESEARCH FELLOW
Advisor: Dr. Gaurav Sinha
Developed computationally and statistically efficient algorithms for online learning with non-linear reward functions, with a special focus on parallelizable, batch algorithms.
- 2018–2021 **Goldman Sachs**
STRAT ANALYST
Built surveillance models and analytics to detect trade anomalies and fraudulent activities.
- Summer
2017 **Samsung R&D Institute, Noida**
SUMMER INTERN
Video analytics for Samsung Galaxy smartphones.

Publications

- Ayush Sawarni, Jikai Jin, Justin Whitehouse, Vasilis Syrgkanis. “**Policy Learning with Abstention**”. *Under Submission*
[Paper](#) [↗](#)
- Ayush Sawarni, Sahasrajit Sarmasarkar, Vasilis Syrgkanis. “**Preference Learning with Response Time: Robust Losses and Guarantees**”. To appear in 38th Conference on Neural Information Processing Systems
[Paper](#) [↗](#) , [NeurIPS 2025](#)
- Ayush Sawarni, Nirjhar Das, Siddharth Barman, Gaurav Sinha. “**Generalized Linear Bandits with Limited Adaptivity**”. Advances in Neural Information Processing Systems 37 (2024).
[Paper](#) [↗](#) , [NeurIPS 2024 \(Spotlight\)](#)
- Ayush Sawarni, Soumyabrata Pal, Siddharth Barman. “**Nash Regret Guarantees for Linear Bandits**”. Advances in Neural Information Processing Systems 36 (2023).
[Paper](#) [↗](#) , [NeurIPS 2023](#)

Ayush Sawarni, Rahul Madhavan, Gaurav Sinha, Siddharth Barman. “**Learning Good Interventions in Causal Graphs via Covering**”. Proceedings of the Thirty-Ninth Conference on Uncertainty in Artificial Intelligence.

[Paper ↗](#) , [UAI 2023](#)

Siddharth Barman, Arindam Khan, Arnab Maiti, Ayush Sawarni (Alphabetical Order). “**Fairness and Welfare Quantification for Regret in Multi-Armed Bandits**”. Proceedings of the AAAI Conference on Artificial Intelligence.

[Paper ↗](#) , [AAAI 2023](#) ([Oral](#), [Talk ↗](#))

Honors and Awards

2023 Google Travel Grant (NeurIPS).

2023 Microsoft Travel Grant (UAI).

2022 **Reliance Foundation Scholar** (40 postgraduate students, India).

2021 GATE (Computer Science) **All-India Rank 3/100,000**, score **1000/1000**.

2018 Winner, India–EU ICT Standards OneM2M Hackathon.

2016 Runner-up, nationwide robotics competition (MHRD, India).

Academic Service and Extracurricular Activities

- Reviewer: NeurIPS 2024; SOSA 2023.
- Teaching Assistant: [Game Theory](#), [Data Science and AI](#); Design and Analysis of Algorithms.
- Teaching Volunteer, National Service Scheme (2014–2016): taught computer applications to underprivileged women and children (Pilani and nearby villages).