Mihir Upadhyay

✉ mu2253@nyu.edu | 🔗 LinkedIn | 📞 +1 (551)-362-5762 | 🎓 Google Scholar | GitHub | 🏠 mihirupadhyay.github.io

EDUCATION

New York University   New York, US
M.S. in Data Science   *Sep 2024 - Present*
GPA: 3.93/4.0
Advisor: Umang Bhatt
Coursework: Independent Research I & II, Deep Learning, Machine Learning, Optimization & Computational Linear Algebra, Probability & Statistics, Responsible Data Science

Indian Institute of Technology BHU   Varanasi, India
B.Tech in Chemical Engineering, First Class with Honours   *Jul 2017 - May 2021*
GPA: 8.68/10.0
Coursework: Linear Algebra, Differential Equations, Vector Calculus, Programming in C, Computational Fluid Dynamics, Applications of psychology, New Literature in English

PUBLICATIONS

Characterizing Higher-order Externalities of Human-AI Interaction on Human-Human Interaction   *Working paper*
Mihir Upadhyay*, Bernardo Vilegas*, Siobhan Mackenzie Hall, Katherine M. Collins, Umang Bhatt

When Should We Orchestrate Multiple Agents? 🔗   *Under review (ICML)*
Umang Bhatt*, Sanyam Kapoor*, **Mihir Upadhyay***, Katherine M. Collins, Ilia Sucholutsky, Francesco Quinzan, Adrian Weller, Andrew Gordon Wilson, Muhammad Bilal Zafar*

Characterizing Web Search in The Age of Generative AI 🔗   *Under review (ACL ARR)*
Elisabeth Kirsten, Jost Grosse Perdekamp, **Mihir Upadhyay***, Krishna P. Gummadi and Muhammad Bilal Zafar*

RESEARCH & INDUSTRY EXPERIENCE

TRACE Lab, University of Cambridge   Cambridge, UK
Visiting Research Assistant   *Sep 2025 – Present*
- Leading the development of open-source framework to systematically characterize the higher order effects of the human-AI interactions on downstream human-human decision making

IBM Thomas J. Watson Research Center   New York, US
Student Researcher   *Sep 2025 – Present*
- Developing a unified evaluation framework for LLM agents' tool-level schema understanding & task execution ability from multi-hop execution trajectories in multi-agent systems

RC Trust, Ruhr University   Bochum, Germany
Research Intern   *May 2025 - Aug 2025*
- Designed an evaluation framework for generative search agents across multi-domain corpora, measuring epistemic diversity, temporal robustness, and source sensitivity.
- Utilized advanced topic-modeling and representational analysis methods, including LLOOM concept induction and custom AST-based parsers, to quantify topical coverage and infer latent reference structures.

Flixstock   Gurugram, India
Technical Product Manager   *Oct 2022 - Sep 2023*
- Built end-to-end generative pipelines combining diffusion models, GANs, semantic segmentation, and vision–language models to enable controllable and high-fidelity image synthesis for e-commerce
- Integrated advanced modules such as ControlNet and LaMa for conditioning and inpainting, improving structural consistency across varied product categories

Standard Chartered Bank   Bengaluru, India
AI/ML Analyst   *Jul 2021 - Sep 2022*
- Led bank-wide integration of trustworthy ML practices by deploying Truera-based bias, drift, and stability monitoring pipelines for production forecasting models.

Data Science Intern   *May 2020 - Jul 2020*
- Developed and optimized gradient-boosting and ensemble classifiers on the Credit Card Fraud Detection dataset, improving precision by 5%.

TEACHING

Teaching Assistant   *Sep 2025 – Present*
Courant Institute of Mathematical Sciences, NYU   New York, US
- Course: Algebra, Trigonometry, and Functions

Teaching Assistant   *Jan 2025 – May 2025*
Center for Data Science, NYU   New York, US
- Course: Responsible Data Science

SERVICE

Co-organizer   *Nov 2024 – Present*
NYU Computational Intelligence, Vision, and Robotics (CILVR) Seminar Series   New York, US

Committee Member   *Sep 2024 – May 2025*
NYU Graduate Community Building Group (GCBG) for inclusivity in Data Science   New York, US

AWARDS

- **Swami Vivekanand Scholarship for Academic Excellence** toward MS funding ($75K)
- **IIT BHU Merit Scholarship** for the academic years 2017-2021

SKILLS

Programming: Python, Numpy, pandas, scikit-learn, PyTorch, TensorFlow, Hugging Face, LangChain, Transformers, SQL, Shell, HTML, JavaScript, C, C++, Prolific, Docker, AWS
Languages: Braj (native), Hindi (native), English (fluent)