

Nihal Jain

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Education

Columbia University

Ph.D. in Computer Science

New York, NY

Sep 2025 – Present

Carnegie Mellon University

M.S. in Machine Learning, GPA: 4.08/4.33

Pittsburgh, PA

Aug 2021 – Dec 2022

Birla Institute of Technology & Science, Pilani – Hyderabad Campus

B.E. in Computer Science, GPA: 9.94/10.0

Hyderabad, India

Aug 2017 – Jul 2021

Selected Publications

(* = equal contribution)

On Mitigating Code LLM Hallucinations with API Documentation

Nihal Jain, Robert Kwiatkowski, Baishakhi Ray, Murali Krishna Ramanathan, Varun Kumar

International Conference on Software Engineering (ICSE) 2025 – Software Engineering in Practice Track

The Amazon Nova family of models: Technical report and model card

Aaron Langford, ..., Nihal Jain, ... (many authors)

Amazon Technical Reports 2024

CrossCodeEval: A Diverse and Multilingual Benchmark for Cross-File Code Completion

Yangruibo Ding, Zijian Wang*, Wasi Ahmad*, Hantian Ding, Ming Tan, Nihal Jain, Murali Krishna Ramanathan, Ramesh Nallapati, Parminder Bhatia, Dan Roth, Bing Xiang*

NeurIPS 2023 – Datasets and Benchmarks Track

ContraCLM: Contrastive Learning For Causal Language Model

Nihal Jain, Dejiao Zhang*, Wasi Uddin Ahmad*, Zijian Wang, Feng Nan, Xiaopeng Li, Ming Tan, Ramesh Nallapati, Baishakhi Ray, Parminder Bhatia, Xiaofei Ma, Bing Xiang*

Association for Computational Linguistics (ACL) 2023

Multiviz: Towards visualizing and understanding multimodal models

Paul Pu Liang, Yiwei Lyu, Gunjan Chhablani, Nihal Jain, Zihao Deng, Xingbo Wang, Louis-Philippe Morency, Ruslan Salakhutdinov

International Conference on Learning Representations (ICLR) 2023

Self-supervised Multi-view Disentanglement for Expansion of Visual Collections

Nihal Jain, Praneetha Vaddamanu, Paridhi Maheshwari, Vishwa Vinay, Kuldeep Kulkarni

Web Search and Data Mining (WSDM) 2023

Experience

Amazon Web Services (AWS)

New York, NY

Applied Scientist II

Oct 2024 – Aug 2025

Applied Scientist I

Feb 2023 – Sep 2024

- Led post-training of LLMs for code generation in the Amazon Q Developer/CodeWhisperer team
- Designed experiments to improve LLMs for code editing and software engineering agentic tasks
- Published research on code generation with LLMs at venues like NeurIPS 2023, ICSE 2025

Applied Scientist Intern

May 2022 – Aug 2022

- Improved generative language models on discriminative tasks using contrastive learning (ACL 2023)

Adobe Research

Bangalore, India (Remote)

Research Intern

Jan 2021 – Jul 2021

- Self-supervised representation learning for multi-modal information retrieval (WSDM 2023)

Research Intern

May 2020 – Aug 2020

- Developed GANs to generate color profiles condition on textual queries for image search (CIKM 2021)

Indian Space Research Organisation (ISRO)

Dehradun, India

Research Intern

May 2019 – Jul 2019

- Implemented semantic segmentation of satellite images of Indian terrain (Geocarto Intl. 2020)

Awards

Institute Gold Medal – BITS, Pilani

Aug 2021

- Awarded for obtaining the 1st position in the class of ~1100 graduating students

KC Mahindra Scholarship for Post Graduate Studies Abroad

Jul 2021

- Granted to pursue post-graduate studies abroad offered to ~50 out of >1000 applicants

Invited Talks

Code Generation Hallucinations & Alignment: An Industry Perspective 🌐

Nov 2024

- Columbia University, Host: Prof. Baishakhi Ray

Service

Program Committee

2023 – Present

- NeurIPS (2023, 2025), ARR (Feb 2024, Jun 2024), ICML (2024, 2025), AAAI (2025), ICLR (2025)

Admissions Committee – CMU Machine Learning Department

2021 – 2022

- Reviewed applications to the M.S. in Machine Learning program for the Fall 2022 intake