

Gauri Joshi

<http://andrew.cmu.edu/user/gaurij>

Google Scholar

CURRENT RESEARCH INTERESTS

Algorithms for LLM Inference Optimization, Distributed training and fine-tuning of foundation models, Reinforcement learning and Multi-armed bandit algorithms

EXPERIENCE AND EDUCATION

Carnegie Mellon University Pittsburgh PA

Full Professor (with tenure) of Electrical and Computer Engineering

Jul 2026 –

Associate Professor of Electrical and Computer Engineering

Jul 2022 – Jun 2026

Assistant Professor of Electrical and Computer Engineering

Sept 2017 – June 2026

Google Research

Visiting Faculty Researcher

May 2026 –

Microsoft M365

Visiting Researcher

Jan 2022 – Mar 2023

IBM T. J. Watson Research Center

Research Staff Member

July 2016 – Aug 2017

Massachusetts Institute of Technology

Ph.D and M.S in Electrical Engineering & Computer Science

Sept 2012– Jun 2016

Best MS Thesis Award

Indian Institute of Technology Bombay

B. Tech & M. Tech in Electrical Engineering; GPA 9.77/10.0

Jul 2005–Jun 2010

Institute Gold Medal

SELECTED AWARDS AND HONORS

- Young Alumna Achiever Award, IIT Bombay 2026
- CMU Philip and Marsha Dowd faculty fellowship for exceptional educational contributions 2025
- **IEEE Goldsmith Lecturer Award** from the Information Theory Society 2025
- Google Research Scholar Award 2023
- Named as one of **MIT Technology Review's 35 innovators under 35** 2022
- Office of Naval Research Young Investigator Award 2022
- CMU College of Engineering Dean's Early Career Fellowship 2022
- **Best Paper Award** at ACM MobiHoc 2022
- **NSF CAREER Award** 2021
- **Best Paper Award** at ACM SIGMETRICS 2020
- **Distinguished Student Paper Award**, NeurIPS FedML Workshop 2019
- **Qualcomm Innovation Fellowship**, awarded to my students Jianyu and Ankur 2019
- IBM Faculty Research Award 2018
- William Martin Memorial Award for **Best Masters Thesis** in Computer Science, MIT 2012

- Morris Joseph Levin Award for **Outstanding Thesis Presentation**, MIT 2012
- Claude E. Shannon Research Assistantship, MIT 2015–2016
- Schlumberger **Faculty for the Future Fellowship** 2011–2015
- Irwin and Joan Jacobs Presidential Fellowship, MIT 2010–2011
- **Institute Gold Medal** for highest GPA in the undergraduate class, IIT Bombay 2010
- Best student in Communications & Signal processing Award, IIT Bombay 2009

PHD STUDENT AND POSTDOC ADVISING

Advised 17 PhD students (10 graduated), 2 post-docs and 25+ masters and undergraduate students. Graduated students and post-docs are listed below:

- Ankur Mallick, now at Microsoft 2017-2022
- Jianyu Wang, now at Apple 2017-2022
- Samarth Gupta (co-advised with Prof. Osman Yağın), now at Amazon 2017-2022
- Ting-Wu (Rudy) Chin (co-advised with Prof. Diana Marculescu), now at Citadel 2020-2021
- Ahmet Inci (co-advised with Prof. Diana Marculescu), now at NVIDIA 2020-2022
- Yae Jee Cho, now at Google 2019-2024
- Tuhinangshu Choudhury (co-advised with Prof. Weina Wang), now at Meta 2019-2024
- Divyansh Jhunjhunwala, now at Amazon AGI 2020-2025
- Jiin Woo (co-advised with Prof. Yuejie Chi), now at Amazon Annapurna Labs 2021-present
- Pranay Sharma, post-doc, faculty at CMINDS IIT Bombay 2021-2024
- Shuli Jiang, now at Amazon AWS 2022-2025

TEACHING AND TEXTBOOK DEVELOPMENT

Courses Taught at Carnegie Mellon:

- *18-461/661: Introductory Machine Learning for Engineers* Spring 2019-present
Taken by ~ 100 students every semester and offered at Pittsburgh, SV and Rwanda campuses
- *18-667: Algorithms for Distributed Machine Learning* Fall 2017-present
Graduate course on distributed ML algorithms. First ever course featuring federated learning.

Textbook Development: Published a book based on 18-667 lecture notes, in the [Springer Nature Synthesis lecture series on Learning, Networks and Algorithms](#)

PUBLICATION RECORD

Published more than > 100 research papers, including > 20 journal papers and > 50 peer-reviewed conference papers. According to [Google Scholar](#), my work has been cited > 22000 times with an h-index of 46 at the time of this writing.

GRANTS AND CONTRACTS AWARDED TO DATE

The total share of funding (excluding start-up funding) awarded to my group to-date exceeds \$5 million, including 7 NSF Awards, grants from ONR and ARO grants, and industry awards from Google, IBM, Facebook, and Bosch.