

Kartikey Sharma

Researcher | Delhi, India



+91 8882625714



kartikeyrinwa@gmail.com



kartikeyrinwa.github.io



[LinkedIn](#)



[Google Scholar](#)

Researcher with a decade of experience in optimization and machine learning. Published 11 papers with 236 citations. Passionate about solving complex problems with data-driven approaches. Brings a strong foundation in mathematics and its application. Good at working in a team and guiding others.

Experience

Independent Researcher

Delhi, India

Oct 2024 - current

- Conducted research work on machine learning focused projects on boosting, sample reduction, etc.
- Consulted on a project to develop a new methodology for spare parts management.

Postdoctoral Researcher & Research Area Lead

Zuse Institute Berlin, Germany

Sep 2020 - Oct 2024

- Collaborated on research projects on optimization and machine learning with applications in Transportation and Healthcare. Directly worked with doctors and medical researchers to ensure practical usefulness.
- Developed and taught a course at TU Berlin on optimization under uncertainty. Worked with several Bachelor's and Master's students on their theses.
- Organized seminars and workshops on the use of machine learning for solving optimization problems, ran events to promote math education and research among undergraduates.
- Represented postdocs as a part of the Berlin Mathematics Research Center. Conducted polls to identify issues relevant to them and organized issues to address their concerns.

Research and Teaching Assistant

Northwestern University, USA

Sep 2014 - April 2020

- Developed models for solving robust optimization problems with decision-dependent and variable uncertainty sets.
- Led the INFORMS Student Chapter to organize sessions to help PhD students with choosing advisors, conducting research, career options, etc. Organized joint events with student chapters at other universities.
- Assisted in teaching courses on optimization, probability and statistics etc.

Research Scientist Intern

Amazon, Seattle

Jun 2018 - Aug 2018

- Developed optimal shipment flow models in the Supply Chain and Optimization Department. Developed a novel optimization model along with a parameter estimation procedure. Delivered evaluations of the final model through simulations of historical data.

Intern

Deutsche Bank, Mumbai

May 2013 - Jul 2013

- At the Custodial Services Department, worked on processes involved in foreign investment into India. Prepared a Key Operating Procedures manual for the bank's Account Documentation Team.

Education

PhD in Industrial Engineering

Northwestern University, Evanston, USA

2015-2020
(3.9/4)

M.S. in Industrial Engineering

Northwestern University, Evanston, USA

2014-2015
(3.9/4)

Integrated Dual Degree B.Tech + MBA, Process Engineering

IIT Roorkee, India

2009-2014
(9.1/10)

Achievements

Nemhauser Best Paper Award, Northwestern University

- Best Research Paper in the Department

2018

Silver Medallist, Graduation Class of 2014, IIT Roorkee

- Ranked 1st in Department

2014

Skills

Languages & Tools: Python, Julia, LaTeX, Git, PyTorch, SQL, C++, Cline

Soft Skills: Leadership, Team Work, Attention to Detail, Communication, Collaboration, Mentoring