

Moksha Pathak

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EDUCATION

- Indian Institute of Science Bangalore** Bangalore, India
Ph.D. in IISc Mathematics Initiative
Cumulative Performance Index(CPI):
Aug. 2026 - Present
- Indian Institute of Technology (IIT) Indore, India** Indore, Madhya Pradesh, India
M.Sc. in Mathematics
Cumulative Performance Index(CPI): 8.34
Aug. 2023 - Jul. 2025
- ICFAI University Jaipur, India** Jaipur, Rajasthan, India
B.Sc. in Mathematics
Cumulative Performance Index(CPI): 9.58
Jul. 2020 - Jun. 2023
- Gurukul A Unique Sr. Sec. School Dausa, India** Dausa, Rajasthan, India
Secondary School Examination (12th)
Percentage: 92%
Jul. 2019 - May. 2020

ACHIEVEMENTS AND QUALIFICATION

- Secured **AIR 597** (94.84 percentile) in **GATE** (Mathematics) 2026.
- Secured **AIR 67** in **CSIR NET(LS)** (Mathematics) Dec. 2025.
- Secured **AIR 408** in **IIT JAM** (Mathematics) 2023.
- Awarded the **Silver Medal** for academic excellence in the B.Sc. program at ICFAI University, Jaipur.

RESEARCH AREA

Scientific Machine Learning, Numerical Optimization.

PUBLICATIONS

- M. Tanveer, M. Pathak, M. Sajid, A. Quadir, and Priyamvada. "Fuzzy-driven broad learning system with class probability and density awareness for multi-view data.", Neural Networks*
- M. Tanveer, M. Pathak, A. Quadir, M. Sajid, and Priyamvada. "Multi-View Broad Learning Framework with Graph-Preserving Structure for Classification." - Under Review, Elsevier.*

ACADEMIC PROJECTS

- Master's Thesis.** Department of Mathematics, IIT Indore, India
Advisor - Prof. M. Tanveer and Dr. Priyamvada
Aug. 2024 - Jul. 2025
Developed novel Broad Learning System (BLS) architectures for multi-view learning, including a graph-embedded multi-view BLS and a fuzzy-driven BLS with class-probability and density-aware membership functions.
- Customer Churn Prediction.** Department of CSE, IIT Indore, India
Advisor - Dr. Puneet Gupta
Jul. 2024 - Nov. 2024
Studied a machine learning model designed to predict customer churn for an e-commerce platform, explored techniques such as random forest imputation for handling missing data and SMOTE for addressing class imbalance.
- Deep Learning and Neural Networks.** Department of CSE, NIT Jaipur, India
Advisor - Dr. Mahipal Jadeja
May 2024 - Jul. 2024
Studied the application of Deep Learning and Neural Networks, implemented frameworks like PyTorch and TensorFlow.

ACADEMIC ACTIVITIES

- Participated in **"IEEE CIS Workshop on Innovation and Leadership in Artificial Intelligence at IIT Indore"** by IEEE MP Section - CIS Chapter. 16 Oct. 2024
- Participated in **"IEEE CIS Workshop on Women in Artificial Intelligence at IIT Indore"** by IEEE MP Section - CIS Chapter. 22 Jan. 2024
- Participated in **"Hands-on Training on MATHEMATICA"** at Bhaskaracharya Mathematics Laboratory by the Department of Mathematics, IIT Indore. 16 Oct. 2023

TECHNICAL SKILLS

- **Programming Languages :** Python, C, R, MATLAB
- **Libraries :** Numpy, Pandas, Scipy, Matplotlib.
- **Documentations :** LaTeX

EXTRA CURRICULAR ACTIVITIES

- Member of **AVANA**, “The Social Welfare Club”, IIT Indore.
- Past Member of “**Margdarshan**: A teaching hub”, IIT Indore.