



MUHAMMAD HAMZA MAHMOOD

RESEARCHER & LECTURER

Education

Lahore Leads University, Pakistan

2021 - 2023

M.Phil (IT) – 3.67/4.00 CGPA

University of Education Lahore, Pakistan

2017 - 2021

BSIT – 3.37/4.00 CGPA

Al-Muarif Boys Higher Secondary School, Nankana Sahib, Pakistan

2015 - 2017

Intermediate

Al-Muarif Boys High School, Nankana Sahib, Pakistan

2013 - 2015

Matriculation

Work Experience

Lahore Leads University - Lecturer

Aug 2023- Aug 2025

Baba Guru Nanak University - Lecturer

Oct 2023- Present

I teach Technology, Programming, and Research courses, conduct seminars and lab sessions, and supervise final year projects, promoting practical learning and critical thinking.

Lahore Leads University Research Lab - Researcher

Dec 2023 – Aug 2025

I have worked as an independent researcher on a research projects, developing and optimizing models to tackle research problems and propose innovative solutions.

Researcher

Oct 2020- Present

I conducted research as an individual contributor on projects in Artificial Intelligence, Machine Learning, and Deep Learning across various domains, resulting in published research work and conference participation.

Technical Skills

- Python Programming (NumPy, Pandas, TensorFlow, Keras)
- Machine Learning
- Deep Learning
- Data Analysis and Visualization
- Computational Modeling & Problem Solving
- Big Data Processing using Python
- Scientific & Technical Writing

About Me

I am an experienced researcher with six publications in reputed journals and over 5 years of experience working on various innovative research projects. I hold an M.Phil degree in Information Technology, with a published thesis.

Additionally, I am a dedicated lecturer, teaching programming, technology, and research related subjects to computer science students at the bachelor level. My extensive experience in both industry and academia has equipped me with a unique skill set.

I am currently seeking opportunities to expand my skills and collaborate with innovative minds around the world. I am eager to contribute to cutting-edge research and bring fresh perspectives to advanced projects.

Contact

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Profile:

<https://scholar.google.com/citations?hl=en&user=qdXMSkQAAAAJ>

Address:

Bhatia Street, Railway Road,
Nankana Sahib, Punjab, Pakistan
39100

Certifications

PIAIC Program, Pakistan

Jan 2020 - Jun 2020

Python Training

PIAIC Program, Pakistan

March 2021 - Aug 2021

Artificial Intelligence Training

PIAIC Program, Pakistan

July 2022 - Dec 2022

Machine Learning, Deep Learning Course

Digital Skills

- ▶ Reference Management (Endnote)
- ▶ Dataset Management (Kaggle/Colab)
- ▶ Data Processing (Jupyter Notebook)
- ▶ Article Formatting (LaTeX)
- ▶ Graphics Tool (Adobe Illustrator)
- ▶ Online Design Tool (Canva)
- ▶ Data Scraping (Scrapy)
- ▶ Prompt Engineering

Management Skills

- ▶ Project Management
- ▶ Research Team Management
- ▶ Data Management
- ▶ Collaboration & Coordination
- ▶ Deadline Management
- ▶ Resource Management

Soft Skills

- ▶ Analytical Skills
- ▶ Effective Research Abilities
- ▶ Clear Communication
- ▶ Dedicated and Professional
- ▶ Adaptable and Flexible
- ▶ Time Management
- ▶ Well-Organized
- ▶ Strong Work Ethic

Hobbies

- ▶ Reading
- ▶ Traveling
- ▶ Learning New Skills
- ▶ Outdoor Sports
- ▶ Mentoring

Language Skills

- ▶ **English:** Fluent
- ▶ **Urdu:** Native

Research Projects

- An IoMT-Enabled Deep Learning Framework for Automated Detection and Classification of Acute Lymphoblastic Leukemia in Microscopic Blood Smears
- Deep Learning and Large Language Model Optimization for Robust Toxic Language Detection
- AI in Conjunctivitis Research: Assessing ChatGPT and Deepseek for Etiology, Intervention, and Citation Integrity via Hallucination Rate Analysis
- Recent Breakthroughs in AI-Driven Robotics: Advancements, Challenges, and Future Directions

Publications

1. KIET Journal of Computing & Information Science

Muhammad Hamza Mahmood, Muhammad Hasnain, Rizwan Mehmood, Sardar Usman, Rana Zeeshan Zulfiqar. "Enhancing Histopathological Image Classification: Optimal Fine-Tuning of Convolutional Neural Networks with Feature Extraction", <https://kjcisjournal.kiet.edu.pk/index.php/kjcis/article/view/226>

2. FUJEAS Journal of Engineering and Applied Sciences

Muhammad Hamza Mahmood, Muhammad Hasnain, Rana Zeeshan Zulfiqar, Sadam Hussain. "Deep Learning for Disease Classification in Teledermatology System Using Dermoscopic Skin Images." <https://fujeas.fui.edu.pk/index.php/fujeas/article/view/900>

3. 2023 4th International Conference on Computing, Mathematics and Engineering Technologies (iCoMET), IEEE Xplore.

Alina Yaqoob, Faisal Rehman, Hanan Sharif, **Muhammad Hamza Mahmood**, Shahid Sharif, Awais Ahmad, Chaudhry Nouman Ali, Ayaz Hussain, and Malhar Khan. "Skip Connections' Importance in Biomedical Image Segmentation", DOI: [10.1109/iCoMET57998.2023.10099184](https://doi.org/10.1109/iCoMET57998.2023.10099184)

4. IECE Journal

Ahmed, Rana, Hasnain, Muhammad, **Muhammad Hamza Mahmood**, Muhammad Abid. (2024). Comparison of Deep Learning Algorithms for Retail Sales Forecasting. IECE Transactions on Intelligent Systematics, 1(3), 101–115. DOI: <https://doi.org/10.62762/TIS.2024.300700>

5. Frontiers in Artificial Intelligence Journal

Hasnain Muhammad, Aurangzeb Khursheed, Alhussein Musaed, Ghani Imran, **Muhammad Hamza Mahmood**. (2025). AI in Conjunctivitis Research: Assessing ChatGPT and Deepseek for Etiology, Intervention, and Citation Integrity via Hallucination Rate Analysis. Frontiers in Artificial Intelligence. DOI: [10.3389/frai.2025.1579375](https://doi.org/10.3389/frai.2025.1579375)

6. JCSA Journal

Rana Zeeshan Zulfiqar, **Muhammad Hamza Mahmood**, Salman Akram. "Using Social Media to Solve the Cold Start and Data Sparsity Challenges in Recommender Systems. *Journal of Computational Science and Applications (JCSA)*, ISSN 3079-0867 (Online), 1(1).