

Syed Hasan Amin Mahmood

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EDUCATION

Purdue University

Ph.D. in Computer Science — GPA: 4.0/4.0

M.S. in Computer Science — GPA: 4.0/4.0

West Lafayette, IN

Aug. 21 – Present

Aug. 21 – May. 24

Research Area: (Human-Centered) AI, ML & NLP

Select Courses: Algorithms, Cognitive Psychology, Computation & Learning on Graphs, Computational Methods in Optimization, Human-AI Interaction, Interpretability in ML, Natural Language Processing, Probabilistic Causal Inference, Social Psychology, Statistical Machine Learning, Theoretical CS Toolkit

Lahore University of Management Sciences (LUMS)

B.S. in Electrical Engineering — GPA: 4.0/4.0

Minor: Computer Science

Lahore, Pakistan

Sep. 16 – Jun. 20

Select Courses: Advance Digital Signal Processing (Grad), Advanced Programming, Applied Probability (Grad), Artificial Intelligence, Data Science, Deep Learning, Dynamic Programming & Reinforcement Learning (Grad), Embedded Systems (Grad), Information Theory & Machine Learning (Grad)

EXPERIENCE

Microsoft

Data Scientist (PhD) Intern

Investigating efficient and effective alternates to autoregressive language modeling.

Redmond, WA

May 25 – Aug. 25

Microsoft

Data Scientist (PhD) Intern

Improved finetuning and alignment of LLMs through strategic synthetic data generation and selection.

Redmond, WA

May 24 – Aug. 24

Afiniti

Data Scientist

Applied Bayesian statistical modeling and machine learning methods to create human-centered optimizations in customer-agent pairings and channels, driving measurable revenue growth and cost reduction.

Lahore, Pakistan

Oct. 20 – Aug. 21

University of Notre Dame

Research Assistant

Worked on deep learning, deep generative models in particular, in challenging time series contexts characterized by lack of stationarity, seasonality, completeness etc., with focus on security and health applications.

Notre Dame, IN

Jun. 20 – Oct. 20

TEACHING APPOINTMENTS

Purdue University

Instructor of Record

Data Mining (CS 573)

Fall 2025

Purdue University

Graduate Teaching Assistant

Data Mining (CS 573), Data Engineering I (CS 50023), Foundations of Decision Making (CS 50025), Data Science Capstone (CS 490), Introduction to Data Science (CS 242 / STAT 242)

Fall 2021 – Present

LUMS

Teaching Assistant

Advance Digital Signal Processing (EE 511), Engineering Laboratory (EE 100), Feedback Control Systems (EE 361), Circuits II (EE 242), Introduction to Game Theory (ECON 233 / MATH 232)

Fall 2018 – Fall 2020

PUBLICATIONS

S. H. A. Mahmood, M. Yin, R. Khanna, “Align When They Want, Complement When They Need: Human-Centered Ensembles for Adaptive Human-AI Collaboration.” (*Under Review*)

S. H. A. Mahmood, M. Yin, R. Khanna, “XAI Revisited: Explanations are Features, and We Should Engineer Them!” (*Under Review*)

S. H. A. Mahmood, M. Yin, R. Khanna, “On the Support Vector Effect in DNNs: Rethinking Data Selection and Attribution,” in *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*, Toronto, Canada, August 2025.

Preliminary version appeared in *NeurIPS Workshop on Attributing Model Behavior at Scale (ATTRIB)*, New Orleans, LA, December 2023.

Z. Lu, **S. H. A. Mahmood**, Z. Li, M. Yin, “Mix and Match: Characterizing Heterogeneous Human Behavior in AI-assisted Decision Making,” in *AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Pittsburg, PA, October 2024.

S. H. A. Mahmood, Z. Lu, M. Yin, “Designing Behavior-Aware AI to Improve the Human-AI Team Performance in AI-Assisted Decision Making,” in *International Joint Conference on Artificial Intelligence (IJCAI)*, Jeju, South Korea, August 2024.

Preliminary version appeared in *ICML Workshop on Artificial Intelligence & Human Computer Interaction*, Honolulu, HI, July 2023.

S. H. A. Mahmood, A. Abbasi, “Using Deep Generative Models to Boost Forecasting: A Phishing Prediction Case Study,” in *IEEE International Conference on Data Mining (ICDM) Workshops*, Sorrento, Italy, November 2020.

S. H. A. Mahmood, S. M. A. Abbasi, A. Abbasi, F. Zaffar, “Phishcasting: Deep Learning for Time Series Forecasting of Phishing Attacks,” in *IEEE International Conference on Intelligence and Security Informatics (ISI)*, Virtual Conference, November 2020.

HONORS & AWARDS

Travel Award for SIGKDD , National Science Foundation (NSF)	<i>2025</i>
Graduate Travel Award , Purdue College of Science	<i>2025</i>
Winner, North America Student Challenge , IEEE Computer Society (<i>News</i>)	<i>2024</i>
Travel Grant , IJCAI-AIJ	<i>2024</i>
Summer Research Grant , Purdue University	<i>2023</i>
Graduation with High Distinction , LUMS	<i>2020</i>
Winner, Social Innovation Challenge , LUMS Envision	<i>2018</i>
Full Scholarship for National University of Singapore Summer Enterprise Program	<i>2017</i>

SKILLS

Proficient in:	Python, R, MATLAB, C/C++, SQL, \LaTeX , MS Office
Experience With:	Haskell, JavaScript, Go, Verilog, Mojo, NoSQL, Google Cloud Platform, AMTurk, C#, Unity, Modelica, User Research, Wireframing, Prototyping
Languages:	English (Bilingual), Urdu (Bilingual), Punjabi (Beginner), Arabic (Beginner)

SERVICE

Reviewer:	AAAI Conference on Artificial Intelligence (AAAI) [2026], International Conference on Artificial Intelligence and Statistics (AISTATS) [2025,2026], Conference on Neural Information Processing Systems (NeurIPS) [2024, 2025], GenAI for Health @NeurIPS [2024,2025], International Conference on Machine Learning (ICML) [2025] Annual Conference of the Association for Computational Linguistics (ACL) [2025], ACM Conference on Collective Intelligence (CI) [2025], ACM Conference on Human Factors in Computing Systems (CHI) [2025], ACM CHI Late Breaking Work (LBW) [2025], ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) [2024], International Joint Conference on Artificial Intelligence (IJCAI) [2024], Interpretable Machine Learning in Healthcare @ICML [2023, 2022], IEEE Intelligent Systems [2020–2022]
Leadership:	Mentor, Code to PhD [2025-2026] Mentor, Purdue CS Mentor-Mentee Program [2024-2026], Graduate Committee Representative, Purdue CS [2025-2026], Senator, Purdue Graduate Student Government (PGSG) [2024-2025], Officer, Purdue CS Graduate Student Board (GSB) [2024-Present], Organizer, Purdue CS Research Symposium [2025], Judge, Purdue Spring Undergraduate Research Conference [2025], Member, Grant Review & Allocation Committee (PGSG GRAC) [2024-2025],