

Abdullah Mazhar

PhD Scholar at FLAME Lab, IIIT Delhi, India

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A third-year PhD student at IIIT Delhi, working with Dr. Md. Shad Akhtar at FLAME Lab, focusing on NLP/Deep Learning for Responsible AI in mental health. As an NLP researcher, I aim to advance AI systems that are not only effective but also ethically responsible, particularly in sensitive areas like mental health support.

Education

INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY (IIIT DELHI), DELHI	2023 - PRESENT
PhD in Computer Science and Engineering (CSE) Thesis : Responsible and Safety AI in Mental Health Supervisor : Dr. Md. Shad Akhtar	
INSTITUTE OF ENGINEERING AND RURAL TECHNOLOGY	2015 - 2019
B.Tech in Computer Science and Engineering (CSE) Agg : 72.3% Thesis : Twitter Sentiment Analysis system using Text Blob and Tweepy.	

Publications

ACM WWW 2025	Figurative-cum-Commonsense Knowledge Infusion for Multimodal Mental Health Meme Classification Understanding Mental Health in Memes : We introduce AxiOM, a novel dataset designed for fine-grained anxiety symptom classification in memes. To enhance the figurative understanding of Multimodal Language Models, we propose M3H, a commonsense-enriched framework that integrates domain knowledge. Our approach surpasses competitive baselines, improving both anxiety and depression symptom identification through comprehensive quantitative and qualitative evaluations. Accepted-Oral
Neurips 2025	Redefining Experts : Interpretable Decomposition of Language Models for Toxicity Mitigation Reveals fundamental weaknesses in neuron-based toxicity mitigation and offers a more stable, interpretable alternative through EigenShift, an eigen-decomposition technique that targets toxic generation pathways directly. Achieves strong toxicity reduction with no fine-tuning, minimal computation, and no loss in language capability, advancing safer and more trustworthy LLM deployment. Accepted-Poster
ACL 2026	Measuring What Matters!! Assessing Therapeutic Principles in Mental-Health Conversation Identified a gap between fluent AI responses and true adherence to psychotherapeutic principles in mental health systems. Framed the need for structured evaluation beyond surface-level coherence, focusing on empathy, autonomy, and contextual appropriateness. Proposed a benchmark-driven approach to assess therapeutic fidelity and implicit clinical nuance. Accepted-Oral ACL Main

Experience

PROJECT OFFICER

SEP 2022 - DEC 2023

IIT MADRAS | CHENNAI

Contributed to the development of Text-to-Speech (TTS) systems for Indian languages using Deep Learning techniques. Build a Text-to-Speech (TTS) system for Indian languages to provide technical education in rural areas, utilizing advanced speech synthesis techniques.

ASR TTS

DATA SCIENTIST

MAY 2021 - SEP 2022

BIRLASOFT LTD. | NOIDA, India

Developed an end-to-end solution to automate the insurance claim process by digitizing claim forms using neural networks and machine learning techniques. Implemented a model-driven recommendation system to assist in business decision-making for claim approvals. Enhanced customer support through Azure-based solutions, leveraging Chatbot, QnA Maker, and LUIS for seamless interaction and query resolution.

MACHINE LEARNING DJANGO REACTJS AZURE AI

SOFTWARE DEVELOPER

AUG 2020 - AUG 2021

ANALYTICS2AI | GURGAON

Developed an automated tool built on Python Django Web Framework that updates the customers on product delivery status by extracting email from their Gmail Inbox (via Gmail API) and notifies customers on Whatsapp at scheduled intervals.

DJANGO REACTJS

Projects

Bhashini
2022-2023

Speech Models for Indian Languages(IIT Madras)

Contributed to the development of Text-to-Speech (TTS) systems for Indian languages using DeepLearning techniques. Conducted extensive experimentation and tuning of TTS models to improve their overall performance and achieve natural-sounding speech for Indian Languages.

ASR TTS

Automation
2021-2022

Insurance Automation System(Birlasoft)

Build a Submission automation solution that automate the insurance claim process by digitizing the claim forms using neural network and machine learning technology and provides the model recommendation to take business decisions on approval process. Customer support using Azure chatbot, QnA maker and LUIS.

Azure AI Django ReactJS

Ezzytalk

Analytics2AI 2020-2021

Designed and Developed an automated tool built on Python Django Web Framework that updates the customers on product delivery status by extracting email from their Gmail Inbox (via Gmail API) and notifies customers on Whatsapp at scheduled intervals.

Django ReactJS

CERTIFICATIONS

Foundation of Data Science by PadhAI One Fourth Lab.

Microsoft Azure AI 900.

Applied Machine Learning by Applied AI.

Django Masterclass by Udemy.

AWARDS

2025 Received ACM India Grant to present our WWW '25 paper in SYDNEY, AUSTRALIA.

2025 Received Microsoft India Grant to present our WWW '25 paper in SYDNEY, AUSTRALIA.

2025 Received Google Research Grant to present our WWW '25 paper in SYDNEY, AUSTRALIA.

Skills

Interests	NLP - Dialogue Systems, Deep Learning, Machine Learning, Human Behavior, LLMs, PostTraining, RL, LoRA, PEFT
Technical	Python, PyTorch, LLMOps, Git, Azure AI
Web	Django, ReactJS, Flask, PostgreSQL
Database	PostgreSQL, Sqlite, MySQL

References

Dr. Md. Shad Akhtar

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Dr. Aseem Srivastava

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