

Manjeet Yadav

CHANAKYA FELLOW

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Personal Profile

I am an MS student in the Department of Electrical Engineering and Computer Science at the Indian Institute of Science Education and Research, Bhopal. I am proficient in Python programming and have extensive knowledge of data science, machine learning, and artificial intelligence. My research is centered around digital well-being and healthcare applications, aiming to solve real-world problems.

Education

Indian Institute of Science Education and Research, Bhopal

Aug 2019 - Current

BS-MS in the Electrical Engineering and Computer Science

CGPA: 8.19/10

- Courses: Machine learning, Artificial Intelligence, and Database Management Systems.

Board of Secondary Education Rajasthan, Ajmer

2017 - 2018

Higher Secondary

Percentage: 90.80%

Current Research Work

Developing a Chatbot Framework for Mental Health Diagnosis and Intervention

IISER Bhopal & AIIMS Bhopal

I am developing a chatbot that utilizes artificial intelligence and natural language processing techniques to interact with users. It will collect relevant information and provide preliminary diagnoses for mental disorders. Creating and implementing this chatbot is based on the concept that people have a "Virtual Friend" who assists them in improving their mental well-being.

Understanding Stress: A Web Interface for Mental Arithmetic Tasks in a Trier Social Stress Test

ACM INDIAHCI

IISER Bhopal

Accepted - Oct. 2023

We utilized wearable ECG technology to investigate stress levels during a modified Trier Social Stress Task (TSST), specifically a Mental Arithmetic Task (MAT) with varying difficulty levels.

Unveiling Social Anxiety: Analyzing Acoustic and Linguistic Traits in Impromptu Speech within a Controlled Study

ACM JCSS

IISER Bhopal

Accepted - Mar. 2024

Proposed a non-intrusive method for early detection of Social Anxiety Disorder (SAD) using speech pattern analysis, eliminating the need for clinical visits or video recordings. Leveraging short audio snippets, our approach provides a practical and accessible solution, especially suited for the digital age with widespread smart device use, offering a scalable tool for real-time anxiety prediction.

Automating Mental State Examination: A Global Solution to Mental Health Shortages

ACL

IISER Bhopal & AIIMS Bhopal

Submitted

This research addresses the global mental health crisis by proposing an automated Mental State Examination summarization tool to aid mental health professionals in the early detection of mental illnesses. The tool, developed through fine-tuning large language models with psychological conversation data, generates concise summaries and shows superior performance in summarizing psychologist-participant interactions.

Academic Projects

Sports Analytics using Wearable technology

Jan, 2023 – April, 2023

Course project: Internet of Things

This project is designed to assist players in enhancing their performance by furnishing them with comprehensive data on their physical activity during matches or training sessions. The system utilizes an accelerometer and force sensors securely attached to the player's shoe to gather information on their movement, impact, and exerted force. Subsequently, the collected data is analyzed to pinpoint areas for improvement, providing valuable insights to help players develop and refine their skills.

Control a vertical traversing elevator using a microcontroller

July, 2022 – Dec, 2022

Course project: Data science & Machine learning

The project aims to develop a predictive model that leverages documented opening prices of Bitcoin to forecast future price movements. The cryptocurrency market is known for its volatility, and accurate price predictions can provide valuable insights for investors, traders, and other stakeholders.

Work & Research Experience

Chegg.com

Subject Matter Expert

Bhopal, Madhya Pradesh

Sep 2021 - Curren

National Programme on Technology Enhanced Learning

Teaching Assistant

Bhopal, Madhya Pradesh

July 10-15, &

- Hands- on workshop on Internet of Things
- Investigator: Dr. Haroon Rashid Lone

Professional Training and Certification

Courses

- Python Developer
- Full Stack Web Developer
- Data Structure & Algorithms

Technical Skills

AI Technologies Machine learning, Deep learning, Natural language processing

Programming C, C++, Java, Python, Matlab, Javascript, SQL (Data Base)

Miscellaneous Data structure, Web development, App development

Soft Skills Time Management, Teamwork, Problem-solving, Documentation

Skills and Achievements

GATE 2023 Qualified Graduate Aptitude Test in Engineering 2023

Workshop Attend Synergizing Healthcare Services and Affective Computing using Deep Learning workshop

Member Programming Club & Placement Team- IISER Bhopal

Volunteer Innovation Design and Entrepreneurship Bootcamp, Summer Outreach Program IISER Bhopal

JEE 2019 Qualified Joint Entrance Exam Mains & Advance 2019

References

Dr. Haroon Rashid Lone

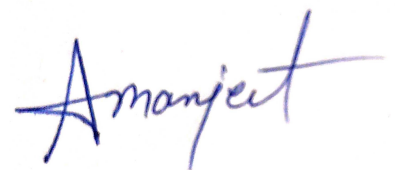
Assistant Professor

Department of Electrical Engineering and Computer Science

IISER, Bhopal

MS Thesis Supervisor

I hereby certify that the above information is true and correct to the best of my knowledge.



Manjeet Yadav