Mitanshu Sukhwani

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EXPERIENCE

Project Associate Bangalore, IN Department of Computational and Data Sciences, Indian Institute of Science (IISc) Feb 2025 - May 2025

Tirupati, IN Project Associate Feb 2023 - Feb 2024

Department of Physics, Indian Institute of Science Education and Reasearch (IISER)

EDUCATION

Indian Institute of Technology (IIT) Madras

M.Sc. in Physics, CGPA: 7.53/10.00

Gujarat University Ahmedabad, IN

B.Sc. in Physics, CGPA: 7.30/10.00 2017 - 2020

Research Projects

PaperMatch: Advanced Scientific Article Recommendation System

Feb 2024 - Present Independent Project

Developed an AI-driven recommendation system for scientific articles on arXiv, using embedding models, Gradio, and Milvus for efficient vector database management. Conference Proceedings & Website.

Fine-Tuning IBM Granite Models for Scientific Machine Learning

IISc Bangalore

Chennai, IN

2020 - 2022

Project Associate — Supervisor: Prof. Sashikumaar Ganesan

Feb 2025 - May 2025

Improved domain-specific performance and adaptability for scientific applications.

BrainConnectML: EEG to Graph-Based Machine Learning

Project Associate — Supervisor: Dr. Aradhana Singh

IISER Tirupati Feb 2023 - Feb 2024

Created a complete pipeline that transforms EEG data into functional brain networks, extracts graph features, and applies machine learning for classification tasks through various methods at each step.

Brain Network Dynamics using Coupled Kuramoto Oscillators

IISER Tirupati

Project Associate — Supervisor: Dr. Aradhana Singh

Feb 2023 - Feb 2024

Investigated brain network synchronization using a modified Kuramoto Model on various network structures. Analyzed the impact of network topology on synchronization and chaotic dynamics.

SKILLS

Achievements & Certifications

- Programming Languages: Python, C++, SQL.
- ML Frameworks: Pytorch, TensorFlow, scikit-learn.
- Data Analysis Tools: MATLAB, MNE, NetworkX, NumPy, pandas, matplotlib, Numba, git, HPC, GPU.
- Cloud Computing: AWS, GCP, Azure, Oracle.
- Typesetting: LATEX, MS Office, LibreOffice.
- Languages: English (Proficient), Hindi (Native).
- Achieved a percentile score of 98 in GATE Data Science and Artificial Intelligence. 2025
- Achieved a percentile score of 95.5 in GATE Computer Science and IT. 2025
- Achieved a percentile score of 95 in GATE Data Science and Artificial Intelligence. 2024
- Achieved a percentile score of 95 in GATE Physics, conducted nationwide in India. 2023