Mitanshu Sukhwani

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EXPERIENCE

Project Associate   Tirupati, IN
Department of Physics, Indian Institute of Science Education and Reasearch (IISER) Tirupati   Feb 2023- Feb 2024

EDUCATION

Indian Institute of Technology (IIT) Madras   Chennai, IN
M.Sc. in Physics, CGPA: 7.53/10.00   2020–2022

Gujarat University   Ahmedabad, IN
B.Sc. in Physics, CGPA: 7.30/10.00   2017–2020

RESEARCH PROJECTS

PaperMatch: Advanced Scientific Article Recommendation System
Independent Project   Feb 2024 - Present
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**.

RedactNLP: Secure Data Redaction
Independent Project   Feb 2024 - Present
Utilized advanced Optical Character Recognition and Named Entity Recognition models to efficiently redact Personally Identifiable Information from text and images, ensuring data privacy in PDFs.

BrainConnectML: EEG to Graph-Based Machine Learning   IISER Tirupati
As Project Associate, Supervisor: Dr. Aradhana Singh   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
As 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

- **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).

ACHIEVEMENTS & CERTIFICATIONS

- Achieved a percentile score of **99.95** in **GATE Data Science and Artificial Intelligence**.   2024
- Achieved a percentile score of **99.95** in **GATE Physics**, conducted nationwide in India.   2023
- IBM Applied DevOps Engineering Professional Certificate.   2024
- Google Cybersecurity Professional Certificate.   2024

References available upon request.