Tribhuwan Singh

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Education

Indian Institute of Technology (ISM) Dhanbad   Expected May 2026
Master of Science in Mathematics and Computing (CGPA: 7.05 / 10)   *Dhanbad, Jharkhand*

- **Relevant Coursework:** Machine Learning, Deep Learning, Data Structures and Algorithms, Operating Systems, Probability and Statistics, Linear Algebra, Numerical Methods

Projects

Kidney Disease Prediction – ML Pipeline   Aug 2025
Python, Scikit-learn, Pandas, Matplotlib, Seaborn

- Built a machine learning pipeline to predict kidney disease using patient health metrics and clinical data.
- Trained and evaluated five models: Logistic Regression, Decision Tree, Random Forest, Gradient Boosting, and XGBoost.
- Optimized performance using GridSearchCV, validated results with cross-validation and confusion matrix.
- Achieved 91.25% accuracy with Random Forest; precision: 92.1%, recall: 90.8%.
- created data visualization dashboards in matplotlib/seaborn for clinical insights.

Mental Health Chatbot   may 2025
LangChain, ChatGroq, Python, Streamlit

- Developed a mental health chatbot tailored for group conversations using ChatGroq and LangChain.
- Designed logic for handling sensitive topics with care, including escalation pathways and anonymized feedback.
- Deployed the chatbot via Streamlit with an intuitive interface for seamless group interaction.

Skills

- **Programming Languages:** Python (NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn), C/C++, SQL, Mathematica

- **Machine Learning and Deep Learning:** TensorFlow, Keras, PyTorch

- **Natural Language Processing (NLP):** NLTK, SpaCy, Gensim

- **Other Tools:** version control(git,github),LaTeX,Tableau.

- **Soft Skills:** Analytical Thinking, Data Storytelling, Collaborative Problem Solving, Adaptive Learning, Good Communication Skills

Achievements

- Two-time consecutive champion in Rubik's Cube speed-solving (college-level)
- Secured AIR 359 in IIT JAM — Mathematics (2024).
- Secured runner-up position in college-level badminton tournament

Certifications

Data Science Mentorship Program — CampusX
Neural Network and Deep Learning — Coursera(andrew Ng)

Extracurricular

- Solved 14 different types of Rubik's Cubes, including advanced variants like Mirror, Pyraminx, and Megaminx.
- Regularly practice badminton and yoga to maintain physical agility and mental focus.