Hrishit Madhavi

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US Work Authorization,Green Card Holder

EDUCATION

MIT World Peace University — Pune, IN
CS Computer Science *Current GPA: 8.3* — Aug 2022 - Present

SNBP International School — Pune, IN
12th CBSE Science *Percentage: 81.8* — June 2020 - July 2022

SNBP International School — Pune,IN
10th CBSE *Percentage: 91.2* — June 2013 - April 2020

EXPERIENCE

IIMT University — Remote
Machine Learning Research Associate — Jan 2025 – Mar 2025

- Led an AI-driven machine learning research project on *Cardiovascular Disease Risk Prediction*, contributing to a PhD study in healthcare analytics.
- Developed a predictive pipeline utilizing ensemble ML models for multi-disease risk assessment.
- Built and deployed an interactive **Streamlit**-based web application featuring **SHAP value visualizations** and model performance comparisons.
- Implemented a **multi-output Random Forest model** to predict multiple disease types simultaneously.

Infosys Springboard — Remote
ML Project Intern — Oct 2024 – Dec 2024

- Designed and implemented a handwritten digit recognition system using neural networks (**MLP**, **CNN**, **LeNet-5**) for **MNIST dataset** classification.
- Developed custom **PyTorch** models with dropout, activation functions, and convolutional layers for efficient feature extraction.
- Built an interactive **Streamlit web application** for digit prediction from uploaded images, achieving accuracies of **90.04%, 98.93%, and 98.95%** respectively.
- Created a digit visualization tool to save and display MNIST images using **Matplotlib**.

SKILLS

Programming Languages:	Java, Python, C/C++
Cloud Services:	Azure
Backend Development:	Spring Boot, ExpressJS,
Frontend Development:	React JS, Angular JS
Data Science & ML:	Statistics, Seaborn, Pandas, Numpy, Scikit-learn, OpenCV
Deep Learning:	TensorFlow, PyTorch, CNNs, RNNs, Transfer Learning, Fine-tuning Models
AI Tooling & Frameworks:	Langchain, Hugging Face Transformers, OpenAI APIs
Operating Systems:	Windows, Ubuntu
Business Tools:	Tableau, Power BI, MS Excel, PowerPoint

PROJECTS

1. Crisis Cradle
Machine Learning–Integrated AWS Web Platform for Real-Time Disaster Prediction (Capstone Project, 2025)
Developed a full-stack web platform leveraging AWS EC2, S3, and Lambda for real-time disaster forecasting using meteorological, seismic, and satellite data.
Integrated machine learning models for predictive analytics and automated Twilio API alerts via SMS/email for timely disaster notifications.
Implemented Razorpay full-stack integration for secure payment handling, enabling premium alert subscriptions and donation processing.
Focused on scalable architecture, automation, and public safety applications through cloud-based AI deployment.

2. Low-Level Language Model for Sentiment Analysis and Translation
Built a sentiment analysis tool for low-resource languages using classical ML models like SVM, Logistic Regression, and Random Forest. Achieved 91% accuracy. Integrated an external translation API to convert summarized text outputs into multiple Indian languages, improving accessibility and regional usability.

3. Chess Board with NLP Integration
Designed a voice/text-controlled chess game using natural language processing and Alpha-Beta Pruning for strategic move generation. Secured a position in the top 10 across the CSE department in the university mini project competition.

PUBLICATIONS

Low-Resource Language Processing: An OCR-Driven Summarization and Translation Pipeline.
Research project focused on multilingual NLP systems for low-resource Indian languages, 2025.
View Paper

CERTIFICATIONS

1. Exploring Adversarial Machine Learning – NVIDIA Deep Learning Institute
Completed in December 2024
2. Beginner's Guide to Machine Learning – Udemy
Completed in June 2024
3. Microsoft Azure Machine Learning Fundamentals -Microsoft
Completed in July 2025
4. Generative AI: Introduction to Large Language Models -LinkedIn
Completed in July 2025