SHIKHAR DAVE

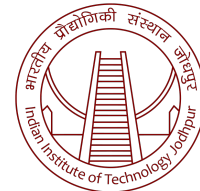## Indian Institute of Technology, Jodhpur

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github.com/shikhar5647

EXPERIENCE

Summer Research Intern
AI Labs , IIT Indore

📅 April 2024 – Present 📍 Remote

- Developing an automatic radiology report generation in local languages model .
- Used various machine translation models and transformers for cascade model creation .

PROJECTS

Covid Detection Using Chest X-Ray
ML Course project

- Implemented a robust deep learning framework for COVID-19 detection from chest X-ray images, integrating HoG, LBP, and CNN techniques.
- Achieved an outstanding accuracy rate of 90.56%, underscoring the effectiveness of the approach in medical image analysis and deep learning applications.
- Tech Used- CNN, HOG, LBP, Computer Vision, Tensorflow, Pytorch, Data Analysis

ML-Ops Agents and Chatbots
Self-Learning Project

- Developed and deployed agents using Autogen , Crew-AI and Open AI -API and multiple API integration .
- Developed a chatbot using langchain and deployed using the streamlit library.
- Tech used - Langchain , Autogen , Crew-AI , Mem-GPT , Streamlit

Healthcare Anomaly Detection
Exploratory Project

- Developed a healthcare anomaly detection project utilizing Autoencoder, Isolation Forest, and Local Outlier Factor techniques to detect fraud in the healthcare sector.
- Tech Used - AutoEncoders, Tensorflow, IsolationForest, LOF

ML Accelerators
Under Dr. Palash Das , Dept. of CSE ,IIT J

- Optimised the Vision Transformer model to reduce computation cycles from 7 to 3 . Working on making the hardware of the project .
- Worked with FPGA Boards like pynq-z2 and Kintex 7 genesys 2 to test optimised hardware codes.
- Tech used - Vivado , Vitis HLS , FPGA , Pytorch

EDUCATION

B.Tech in Chemical Engineering
IIT Jodhpur

📅 2022 – Present CGPA:7.97
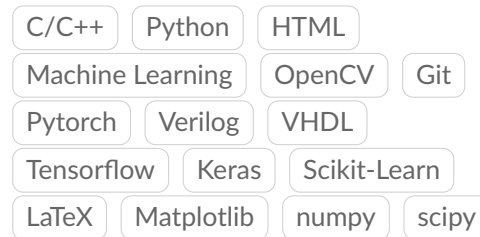
Class XII
DPS Jodhpur

📅 2022 92.4%

Class X
DPS Jodhpur

📅 2020 96.4%

SKILLS

C/C++ Python HTML
Machine Learning OpenCV Git
Pytorch Verilog VHDL
Tensorflow Keras Scikit-Learn
LaTeX Matplotlib numpy scipy

COURSEWORK

- Data Structures and Algorithms
- Introduction to Machine Learning
- Introduction to Computer Science
- Signals and Systems
- Engineering Mathematics I & II
- Probability , Statistics and Stoichastic Process
- Deep Learning Specialisation - Coursera

POSITION OF RESPONSIBILITY

- Internship Coordinator - Career Development Cell , Working for smooth conduction of process and onboarding companies
- Core Member and Mentor - RAID , organised events like kaggle competitions and Deep Learning seminars

ACHIEVEMENTS

- Achieved A grade in Machine Learning Course .
- Achieved A- grade in Data Structures and Algorithms .