Vindhya Jain
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Final Year | Dept. of Computer Science Engineering
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LeetCode |

EDUCATION

IIT JODHPUR
B.Tech in AI and Data Science | Dept. of CSE
2022-26 | Jodhpur, India
CGPA: 8.31

SENIOR SECONDARY SCHOOL
Phoenix Greens School
2022 | Hyderabad, India
Percentage: 96

SECONDARY SCHOOL
Phoenix Greens School
2020 | Hyderabad, India
Percentage: 94

SKILLS

PROGRAMMING
C • C++ • Python
• C# • MySQL • JavaScript

ML/DL
PyTorch • Scikit-learn • CNNs
• LSTM • Autoencoders • GANs
• Transformers • Diffusion Models

WEB DEVELOPMENT
HTML • CSS • ReactJS
NodeJS • REST APIs

OTHERS
Numpy/Pandas/OpenCV
• Git/Github• Unity• VirtualBox

COURSEWORK

UNDERGRADUATE
Data Structures and Algorithms
Pattern Recognition and Machine Learning
Deep Learning
Artificial Intelligence
Computer Vision
Computer Graphics
Data Engineering & Visualization
Operating Systems
Computer Architecture
Design and Analysis of Algorithms
Probability Statistics and Stochastic Processes
Optimization for ML
Mathematics For Computing

WORK EXPERIENCE

CENTRE FOR VISUAL INFORMATION TECHNOLOGY, IIIT HYDERABAD | Internship | May - July 2025
PyTorch, Python, 2DGS, 3D Head Avatars, Neural Rendering

- Built a low-cost pipeline for **realistic, relightable, and editable 3D head avatars** using just a smartphone with **cross-/parallel-polarized capture**.
- Engineered a dynamic capture setup enabling **diffuse/specular separation** for **controllable relighting** in diverse environments.
- Modeled fine details with a **2D Gaussian Splatting** in UV space, supporting **real-time neural rendering** and **flexible appearance editing**.
- Delivered **lifelike avatars** applicable to AR/VR, gaming, etc.

PROJECTS

DRIVER DROWSINESS DETECTION | OpenCV, Facial Landmark Detection, Real-time Inference, Streamlit | 🐙 | 🌐

- Implemented a real-time **driver drowsiness detection pipeline** using both **handcrafted features** (PERCLOS, MCD, etc.) with SVM/LDA and **deep models**.
- Achieved **99%** accuracy using temporal deep learning (CNN+LSTM) and **80–90%** with handcrafted features. Deployed as web demo.

GOLD PRICE PREDICTION | MySQL, Yahoo Finance, Elastic Search, Kafka, Spark, Kibana, Docker | 🐙

- Designed an end-to-end data pipeline integrating **real-time market feeds** from 15+ sources via **Kafka + Spark**.
- Trained **LSTM, RF, LR** achieving **99%** trend accuracy. Deployed pipeline with **Elasticsearch + Kibana** dashboards in Docker.

FOOD ORDERING WEB APP | React.js, Redux, Tailwind CSS, JavaScript, HTML

- Built a web app integrating **Swiggy's live APIs** with a responsive **Tailwind CSS UI** and **Redux-based state management** for seamless navigation
- Optimized the application with **code splitting, lazy loading, and custom hooks** for performance and maintainability.

ROLE-PLAYING GAME | Unity, C#, Animations, Enemy AI | 🐙

- Developed Tiny Swords RPG in **Unity** with **player movement**, **animations**, **item collection**, **immersive UI** (health, inventory, stats), and intelligent **enemy AI** with chasing and aggro mechanics.

OTHER
Music Genre Classification 🐙 🌐 • Non Invasive Haemoglobin Estimation 🐙 • Speech Emotion Recognition 🐙

POR AND ACHIEVEMENTS

- **Finalist**, **Qualcomm Innovation Fellowship** India 2025 (selected from **150+** proposals)
- **Led the team** selected among the top teams at the institute level in **SIH'24**
- **Head of Prerna** for **Prometeo'25** (Tech Fest). Led outreach & social initiatives
- **Assistant Head of Logistics** in **Ignus'24** (Cultural Fest)
- Participation in **MUNs**, **Solo Piano Recitals**, Badminton-Basketball Competitions