Yuvraj Singh

Roll No.:21BCS6343
B.TECH(Hons)
Artificial Intelligence and Machine learning
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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. (CSE)	Chandigarh University, Gharuan	8.02	Jul 2021- Jul 2025
Senior Secondary	CBSE Board	91.2%	Feb 2021

EXPERIENCE

- **Samsung research and development**   *Jan 2024 - Present*
  Prism Intern   Remote
  – Innovated a personal document detection and masking algorithm, enhancing identification accuracy by 35%, ensuring privacy regulation compliance and fortifying data security measures across diverse document types.

- **Wictronix**   *Jun 2023 - Aug 2023*
  AIML Developer Intern   Remote
  – Implemented YOLO V8 for Indian road traffic management, achieving a 40% improvement in vehicle number plate detection accuracy, thus increasing fine collections by 25%.

PROJECTS

- **InterviewX (AI Tutor)**
  Developed an AI tutor app using GenAI, computer vision, NLP, and ML to boost job market success rates by 38%.   Link.
  – Engineered an AI-driven interview preparation application leveraging generative AI, large language model (LLM), and advanced machine learning models. Key functionalities include fake job posting detection (F1 score: 0.86), resume-content similarity analysis, posture evaluation through video analysis, text summarizing module, and question segmentation (F1 score: 0.92).
  – Introduced personalized interview question generation and comprehensive posture analysis feedback, leveraging a high MAP value of 0.916; optimized resumes with detailed preparation, leading to a 30% improvement in interview success rates.
  – **Tools & technologies used**: Python, TensorFlow, Huggingface, Langchain, scikit-learn, Optuna, OpenCV, Pandas, Numpy, NLTK, Plotly, PyPDF2, beautifulsoup4.

- **HomeQuest.AI**
  Innovated a personalized home query application using GenAI and advanced ML.   Link.
  – Designed and deployed an AI-driven Home Finder app with advanced modules for price prediction, loan eligibility (0.92 F1 score), property recommendations, and data visualizations, enhancing search efficiency and user satisfaction by 30%.
  – Serviced a sophisticated Regression Analysis module, refining coefficients interpretation; increased R^2 score from 0.815 to 0.896, notably enhancing property pricing dynamics and reducing pricing errors by 25%.
  – **Tools & technologies used**: Python, Tensorflow, NLTK, TensorFlow-Text, Pandas, Numpy, scikit-learn, Plotly.

RESEARCH EXPERIENCE

- **Impact and Performance Analysis of Diverse Activation Functions for Classification Problems**
- **Exploring Frequency-Based and Predictive Word Embedding Models: A Comprehensive Evaluation**

TECHNICAL SKILLS

- **Programming:** Python,C++,SQL
- **Tools & OS:** Git, Jupyter Notebook,Google Colab, Linux, Windows
- **Libraries/Frameworks:** Pandas, Numpy, scikit-learn, Tensorflow,OpenCV,Langchain,PineCone,Ultralytics
- **Computer science fundamentals:** DBMS, Data structures and algorithms,Operating system, Computer networks

ACHIEVEMENTS

- **Led a team of 4 to 1st place at IIT Mandi Frosthack** demonstrating leadership, communication, and teamwork.
- **Published Deep Learning Research** with **IEEE Bangalore**, highlighting drive for innovation and analytical thinking.
- **Led online workshops as a Microsoft Learn Student Ambassador** teaching 250+ students globally with 90% satisfaction.
- **3 time award-winning Hashnode blogger** with over 2400+ unique user watches.
- **Led and mentored a team of 8 interns at Wictronix** recognized as the **best employee of the month.**