#### **EDUCATION**

- Bachelor of Technology, VIT Bhopal University | Computer Science Engineering | CGPA: 9.13 [2023 2027]
- Grade XII, Vidyatree Modern World School | Percentage: 95.50 [2021 2023]

# **SKILLS**

- Programming Languages: C/C+++, Python, Java, SQL, MySQL, JavaScript, HTML, CSS
- AIML Libraries & Frameworks: Scikit-learn, Pandas, Matplotlib, PettingZoo, Streamlit, Tensorflow, OpenAI Gym
- AI core competencies: Deep learning, Reinforcement learning(Q-learning, PPO, Actor-Critic, Deep Reinforcement learning), Computer vision CNN, NLP, Generative AI (LLMs, prompt engineering), predictive analytics
- Developer Tools: GitHub, Git, MySQL, Docker

## **AI & Machine Learning Projects**

- Search and Rescue Reinforcement Learning System
  - o Designing RL-based autonomous agents for search and rescue in disaster-affected areas
  - o Implementing Q-learning and PPO algorithms to optimize pathfinding in dynamic environments.
  - o Training models in a custom-built multi-agent simulation environment using PettingZoo. .

## • MSMEs E-Commerce Platform with Integrated AI

- Developed an AI-driven fraud detection model that achieved 87% accuracy in flagging fraudulent transactions for small and medium-sized businesses
- Engineered predictive analytics models with 90% accuracy for sales forecasting and inventory management
- o Implemented vendor risk assessment algorithms, increasing buyer trust and transaction security.

#### Deep Q-Network (DQN) for cartpole

 Implemented Developed and implemented a Deep Q-Network (DQN) from scratch to achieve an average score of 300 for 2000 consecutive episodes in the CartPole balancing task using OpenAI Gym.

### CNN for Fashion-MNIST classification

- Developed and trained a Convolutional Neural Network (CNN) to classify images from the Fashion-MNIST dataset
- 91% accuracy in both training and validation, showing minimum overfitting and solid generalisation

### CyberSecurity AI Web Extension for Child Safety

- O Developed an AI-powered browser extension to detect malicious links, at 85% accuracy
- Created for a state-level Police CyberSecurity Hackathon to enhance child safety online.

# **Technical Achievements & Certifications**

Kaggle/Google certified GenAI training: Completed an intensive Generative AI program, gaining a Kaggle badge for
proficiency in Large Language Models (LLMs), prompt engineering, and transformer architecture

## • Competitive Programming:

- TCS CodeVita(2024): Advanced to the penultimate round by solving complex algorithmic problems, achieving a Global Rank of 8261.
- 100 Days of Code: Consistently solved daily DSA problems over a 100-day period to strengthen foundational skills...

#### Certifications:

- o Introduction to Natural Language Processing (NLP) (Issued by Infosys)
- o Google: Bits and Bytes of Computer Networking (Issued by Google)
- o Fundamentals of AI & ML (Issued by VITyarthi)
- o Introduction to Data Science (Issued by Infosys)
- o Graph theory and programming (Issued by AlgoVerse)
- Python Essentials (Issued by VITyarthi)
- o Computer Vision 101

# **Leadership and Volunteering**

- **PR and Outreach, Startup club:** Establishing industry partnerships by coordinating with CEOs, CFOs, and professionals for guest lectures and sponsorship, demonstrating professional networking and relationship building.
- Volunteer, Pahal Foundation: Taught basic mathematics and fundamental elementary education to underprivileged children.