Rudra Chudasama

+91 93272 33815 | rudra.cict22@pdpu.ac.in | linkedin.com/in/r-udraa |
github.com/RudraaChudasama | leetcode.com/RudraChudasama

EDUCATION

Pandit Deendayal Energy University	Gandhinagar, India
Bachelor of Technology in Information and Communication Technology	*Aug. 2023 – Present*
Government Polytechnique	Ahmedabad, India
Diploma in Computer Engineering	*Aug. 2020 – May 2023*

PROJECTS

TrackMania Autonomous Racing Agent | *Python, tmrl, Tensorflow, OpenCV, Gym*

- TM-RL Library Integration: The TM-RL library enables easy application of Reinforcement Learning in TrackMania, helping agents learn driving skills using rewards for performance metrics like speed and lap times.
- State Representation: The environment is broken down into states like car position, speed, and direction, which the agent uses to decide actions based on the current scenario.
- Actions such as steering, accelerating, and braking are defined, allowing the agent to choose the best moves for optimal performance in the game.
- Deep Q-Learning is employed to train the agent using a neural network that predicts the best action to take at each state, optimizing performance and learning from trial and error

TradeX - Cryptocurrency & Forex Trading Web App | *React.js, JavaScript, APIs*   Git link | live link

- Optimized Performance: Reduced page load time by 40% through efficient code refactoring and implementation of lazy loading.
- Integrated with Blynk app for real-time monitoring and remote control via smartphone.
- Automated pump activation based on sensor data, reducing water waste by 50% and enabling scalable smart farming.

KingTrap - Chess Engine | *Python, Object Oriented Programming Concepts Git*   Git link

- Developed an AI-driven chess engine using Minimax with Alpha-Beta Pruning, reducing search space by up to 70% compared to naive Minimax, enabling evaluation of 30K nodes at depth-4 in under 9 seconds.
- Implemented full move legality and optimized gameplay (including en passant, castling, and checkmate detection) with a responsive PyGame-based GUI, achieving smooth two-player and AI modes.
- Prototyped Monte Carlo Tree Search (MCTS) for adaptive decision-making, achieving 72% win-rate parity with Alpha-Beta in test matches, demonstrating extensibility for advanced AI algorithms.

EXPERIENCE

Smart Irrigation System – SSIP Project	June 2023 – July 2023
Governmenr Polytechnique	*Ahmedabad, IN*

- Participated in Gujarat Government's SSIP (Student Startup and Innovation Policy) during diploma studies.
- Built a Smart Irrigation System using Python and IoT to automate and optimize water usage in farming.
- Gained exposure to real-world innovation processes with mentorship and support for prototyping under SSIP.

Machine Learning Intern	May 2025 – July 2025
Brainybeam Info Tech	*Ahmedabad, IN*

- Completed 25+ practical tasks across data preprocessing, visualization, and ML model building using Python libraries such as Pandas, NumPy, Matplotlib, and Scikit-learn with 85% task accuracy.
- Explored supervised learning (SVM, Decision Trees, Naive Bayes) with hands-on model tuning and visual analytics using Seaborn, Power BI, and Streamlit, while maintaining structured weekly documentation.

Academic Coursework Projects – B.Tech	Sep. 2018 – Present
Pandit Deendayal Energy University	*Gandhinagar, IN*

- Completed mini-projects in areas like C/C++ programming, DBMS, and Web Development (adjust to your subjects).
- Gained hands-on experience in practical labs using tools like Arduino, Python, and version control systems.

Technical Skills

Languages: Java, Python, C/C++, JavaScript, React, SQL (Postgres)
Frameworks: Node.js, .NET, WordPress, MongoDB
Developer Tools: Git, Docker, VS Code, Visual Studio, PyCharm, Sub-lime
Libraries: Pandas, NumPy, Matplotlib
Relevent Courses: Data Structure and Algorithms, DBMS, OS, Computer Networks