


Aditya Routh

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EDUCATION

VIT Bhopal University, Bhopal B. Tech in Computer Science (specialization in Artificial Intelligence and Machine Learning)	2022 – 2026 8.92 CGPA
Jermels' Academy, Siliguri, West Bengal Intermediate (XII Science) High School (X)	2010 – 2022 96.2 % 94.4 %

TECHNICAL SKILLS

Programming Languages: Python, C++

Tools/Frameworks: MySQL, MediaPipe, Scikit-learn

Core Knowledge: Data Structures & Algorithms, Artificial Intelligence, Machine Learning, Reinforcement Learning, Operating Systems, Computer Networks, Database Management Systems

WORK EXPERIENCE

Student Event Coordinator, Robotics Club VIT Bhopal	October 2023 - October 2024
<ul style="list-style-type: none">Organized hands-on workshop, with robotics contests, and tech sessions for 70+ students.Mentored successor student event coordinator, ensuring seamless transition and continuity of club initiatives.	

PROJECTS

Analyzing Reinforcement Learning Agents with Mega Tic-Tac-Toe RL, Deep RL	May 2025 - Present
<ul style="list-style-type: none">Evaluating 4 training setups, and developing adaptive reinforcement learning agents for each.Comparing agent efficacy using 2+ diverse training setups and opponent strategies like min-max algorithm.Comparing the performances of the 2 RL techniques used - Q-learning and DQN.	
Autonomous Drone for Smart Agriculture Pixhawk, Raspberry Pi, Computer Vision	August 2024 - April 2025
<ul style="list-style-type: none">Connected and calibrated 7+ devices (flight controller, camera module, etc), ensuring 98% flight stability.Implemented disease classification model achieving preliminary accuracy of 92%.Designed and integrated Pixhawk and Raspberry Pi for 100% autonomous drone navigation and precision spraying	
Real-Time Sign Language Translator Python, OpenCV, MediaPipe	April 2024 - June 2024
<ul style="list-style-type: none">Conversion of hand signs to letters, using primarily 2 libraries - Mediapipe and Scikit-Learn.Improved translation accuracy by 20% through iterative model tuning.Source code: https://github.com/iamadro/sign_language_translator/	

CERTIFICATION

AWS Solutions Architect - Associate Certification Program Ethnus	January 2025 - April 2025
<ul style="list-style-type: none">Gained 2 AWS badges - AWS Academy Cloud Foundations and Academy AWS Cloud Architecting.	
Privacy and Security in Online Social Media NPTEL	January 2024 - April 2024
<ul style="list-style-type: none">Top 5% rank; covered data privacy, security threats, and social network analysis.	
Applied Machine Learning in Python University of Michigan, Coursera	November 2023 - January 2024
<ul style="list-style-type: none">Hands-on with supervised/unsupervised learning, model evaluation, and scikit-learn.	
Breaking into Product Management GeeksforGeeks	June 2023 - July 2023
<ul style="list-style-type: none">Covered 5 modules delving strategic planning, development, and delivery of products.	

EXTRA-CURRICULARS

Smart India Hackathon VIT Bhopal	September 2024 - November 2024
<ul style="list-style-type: none">Selected for national-level round; showcasing creative thinking to deliver effective solutions.	
Debate, Public-Speaker & Chess Player Jermel's Academy	April 2017 - April 2022
<ul style="list-style-type: none">Participated in multiple inter-house events since 8th grade, honing public speaking and strategic thinking.	