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Howrah, India

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Aspiring Aero-CS Engineer | CSE Graduate | ML • CV • Cloud • Simulation

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EDUCATION

B.Tech – Computer Science Engineering

MCKV Institute of Engineering, India | Graduated: 2024

CGPA: 8.29/10

- Final Year Project: *Drone Path Planning using Reinforcement Learning* (Simulation in Python, Q-Learning)

TECHNICAL SKILLS

- **Languages:** Python, C++, Java
- **ML Frameworks:** TensorFlow, Keras, OpenCV, Scikit-learn
- **Simulation:** PX4, CARLA, AirSim
- **Tools:** Git, Docker, Jupyter, Google Colab
- **Cloud:** AWS EC2, S3, Lambda
- **Other:** LaTeX, Linux, Bash scripting

PROJECT EXPERIENCE

Smart Drone Vision System for Search and Rescue

Self-Initiated, 2025

- Used **OpenCV** and **YOLOv5** for real-time object detection on simulated drone feed
- Applied Kalman Filters for motion prediction; evaluated on CARLA environment
- Integrated with AWS Lambda for remote logging of detection events

Aerospace Data Pipeline (Mock Project)

Academic Project, 2024

- Simulated satellite telemetry ingestion and anomaly detection pipeline
- Used time-series modeling and autoencoders to flag deviations
- Deployed with Streamlit frontend for real-time monitoring

Game-Based AI Controller for Autonomous Agent

- Implemented reinforcement learning agent in Unity ML-Agents
- Created environment mimicking quadcopter motion with discrete actions

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CERTIFICATIONS

- **CS50x – Introduction to Computer Science**, HarvardX (Ongoing)
- **CS50ai- Introduction to Artificial Intelligence with Python,** HarvardX (Ongoing)
- **AWS Academy Cloud Foundations**
- **Intro to Self-Driving Cars – Udacity** *(Audit)*