

ARYAN GUPTA



+91-9474584883



aryangupta.2k5@gmail.com



aryan-gupta-ag

SKILLS

Programming Languages: **Proficient:** Python **Familiar:** C/C++, JavaScript
Tools and Frameworks: NumPy, Pandas, Matplotlib, PyTorch, scikit-learn, Keras, Flask, MySQL, Unix/Linux
Other Relevant Skills: IBM Cloud, Networking, Automation, Problem-Solving, Privacy and Security, Pygame

EXPERIENCE

AI and Security Research Intern

June 2025 – July 2025

Ministry of Electronics and Information Technology (MeitY)

- Utilized Stable Diffusion and ControlNet to generate aesthetic, full-image blended error-correction QR codes, enabling cybersecurity applications like steganography, covert data transmission, and anti-phishing authentication.
- Researched and integrated dual-value QR codes with distance-based, cryptographically signed payloads, supporting tiered access control, MFA, anti-counterfeiting, and defensive threat modeling.

AI and Cloud Intern

July 2024 – Aug 2024

Edunet Foundation in collaboration with IBM

- Cleaned and preprocessed large datasets to prepare for modeling, addressing missing values and data inconsistencies to ensure data quality and integrity, and developed a robust ARIMA-based ML model to drive predictive insights.
- Successfully deployed the model on the IBM Cloud platform, leveraging cloud-based infrastructure to enable scalable and efficient model deployment and gaining hands-on experience with cloud-based technologies.

PROJECTS

Multi-Agent Vehicle Fleet Optimization System

Jan 2025 – April 2025

- Developed a multi-agent taxi simulation system using Python, PyGame, and PyTorch that implements both A* path-finding and MADDPG reinforcement learning approaches. Reduced passenger wait times by 20% and optimized fleet coordination, improving ride efficiency for 100+ simulated passengers

Student Performance Prediction

June 2024 – July 2024

- Built a Random Forest Classifier to predict student performance with 96% accuracy. Led end-to-end data preprocessing (imputation, encoding) and parameter optimization using GridSearchCV, boosting model accuracy by 10% and enabling actionable educational interventions.

Automated Video Generation Project

June 2021 – July 2021

- Automated end-to-end video creation from Reddit data using Python, API integration, and MoviePy. Reduced video production time by 90% and increased YouTube engagement by 20% through workflow optimization.

EDUCATION

Manipal University Jaipur - B.Tech, Information Technology

Aug 2022 - May 2026

Relevant Coursework: Data Structures and Algorithms, Object-Oriented Programming, Operating Systems, Relational Database Management System (RDBMS), Data Communication, Computer System Architecture, Web Technologies.

The Air Force School, Subroto Park - Science Stream

Mar 2019 - Feb 2022

LEADERSHIP & EXTRA-CURRICULAR ACTIVITIES

ACM MUJ Student Chapter - Head of Projects and Research Team: Spearheaded an innovative project team of 15+ students, built by interviewing 40+ applicants, and mentored them to a 90% project completion rate.

CyberSpace College Club - Research Team: Actively contributed to cybersecurity research initiatives, collaborated on technical projects, and gained practical experience with emerging security technologies and tools.

Hackathons: Directed my hackathon teams, leading project development, coordination, and successful presentations to expert judging panels. Fostered collaboration and innovation under high-pressure competitive environments.