

# ADITYA PANDEY

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## EDUCATION

### Jaypee Institute of Information Technology (JIIT), Noida

B.Tech — Electronics and Communication Engineering (ECE)

2025 – 2029

CGPA: 7.8 / 10.0

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, Computer Networks, Database Management Systems

## TECHNICAL SKILLS

**Languages:** C++ (primary), Python, JavaScript, HTML/CSS

**Frameworks & Libraries:** React.js, Next.js, Node.js, Express.js, PyQt6, OpenCV, YOLOv8

**AI & APIs:** Groq API (LLaMA 3.3-70B), NLTK, REST APIs, Computer Vision pipelines

**Databases & Tools:** MongoDB, Firebase, Git, GitHub, VS Code, Linux

**CS Concepts:** OOP, Data Structures, Algorithms, System Design, OS, Computer Networks, LLM Integration, Security Hardening, CI/CD

## COMPETITIVE PROGRAMMING

- Solved 300+ DSA problems across LeetCode, CodeChef, and GeeksForGeeks; consistent focus on arrays, graphs, DP, and recursion.
- Google Big Code Challenge — Top 1,500 Global Rank among all participants in algorithmic coding assessment.
- Active on CodeChef and GFG; pursuing competitive rating milestones across platforms.

## OPEN SOURCE CONTRIBUTIONS

### GirlScript Summer of Code 2026 (GSSoC'26) — Contributor

May 2026 – Present

Delivered 15+ merged pull requests across 7 repositories; contributions span backend security, API reliability, frontend responsiveness, and CV/ML pipelines.

- Security hardening: replaced wildcard CORS config with strict origin allowlist; flagged unencrypted biometric storage and Docker healthcheck port misconfiguration in production (Verath).
- Resolved NLTK lazy-loading bug causing runtime crashes on cold start; isolated CI failure from pre-existing unrelated Playwright test failure to validate fix cleanly (Issue #1000).
- Implemented express-rate-limit on unauthenticated code execution endpoint, eliminating DoS vector; resolved npm gyp build failure via --ignore-scripts workaround (CODEVIBE).
- Patched logical AND→OR prompt injection vulnerability and Hashnode GraphQL silent fallback; resolved async httpx migration merge conflicts across 3 PRs (LeetcodeAI).
- Fixed mobile overflow and responsive layout across CSS/JSX; resolved splash screen hang on app cold start; rebased and force-pushed multi-PR chain to clean commit history (Verath).
- Fixed YOLOv8 + OpenCV road hazard detection pipeline — misplaced return, wrong loop scope, traffic-light append bug; proposed YOLOv8 + Faster R-CNN upgrade (DL-Simplified).

## PROJECTS

### JARVIS — AI Desktop Assistant

Python, PyQt6, Groq API (LLaMA 3.3-70B), pytsx3

- Architected thread-safe desktop AI assistant with Qt signals/slots preventing UI freezes during inference; reduced LLM response latency to <1s using Groq API.
- Built custom PyQt6 GUI with animated hex-grid background, typewriter response rendering, and markdown-to-HTML conversion pipeline; Ghost Writer feature automates clipboard injection (Ctrl+V) across apps.
- Replaced deprecated NewsAPI with RSS-based live news; deployed as standalone Windows app with modular command architecture supporting independent feature extension.

### Delhi Sprinkler Dispatch (Skynet C2)

React.js, WAQI API, JavaScript, GitHub Pages

- Built real-time pollution monitoring and dispatch system routing sprinkler units to AQI hotspots across Delhi using live data from 20+ WAQI sensor stations.
- Engineered priority-based dispatch algorithm with resupply mechanics (fuel/water logic); full sensor-to-action pipeline deployed on GitHub Pages applicable to smart city infrastructure.

### **SGPA Estimator**

*React.js, Firebase*

- Built SGPA/CGPA prediction platform for IIIT students — real-time grade simulation across subjects with mobile-responsive UI; adopted by peers for academic planning.

### **Sendly — Instant File Sharing**

*Next.js, Tailwind CSS*

- Developed low-friction file sharing platform focused on minimal latency from upload to shareable link generation; clean UX with responsive design.

## **LEADERSHIP & ACTIVITIES**

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- AI-Tronics, IIIT — Technology Volunteer: active member contributing to technical events, workshops, and community initiatives.
- Google Student Ambassador Program (Gemini) — representing Google's AI ecosystem on campus; facilitating peer adoption of AI tools.
- SCP'26 Creator — initiated and managed an open-source/community project under GitHub; building a technical community from the first year.
- GSSoC'26 Contributor — participated in a structured open-source program alongside 10,000+ contributors globally; GitHub Pull Shark ×2 achievement earned.

## **CERTIFICATIONS**

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**GE Aerospace — Explore Engineering Program**

*GE Aerospace*

**IEEE Techblocks 11.1 — VLSI Certificate**

*IEEE*

**Deloitte Australia — Technology Simulation & Data Analytics**

*Deloitte*

**CodeChef — C++ & Python Programming Certificates**

*CodeChef*