Kaushik Sharma

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EDUCATION

Bachelor of Technology in Computer Science 2024 – 2028
Galgotias University, Greater Noida **CGPA: 9.44 / 10.0**

TECHNICAL SKILLS

Languages:	JavaScript, TypeScript, Python, C++, C, Java, Dart, HTML, CSS
Frameworks/Libs:	React (19), Flutter, Node.js, Express, FastAPI, Redux Toolkit
Backend/Infra:	Docker, Judge0, Redis (Caching), RESTful API, WebSockets, CORS Proxy
Databases:	MongoDB, MySQL, Firebase
AI/Specialized:	LLMs (Gemini API), RAG Pipelines, Tavily API, Monaco Editor, WebRTC
Tools/Design:	Git, GitHub, Postman, Vercel, Chrome DevTools, Tailwind CSS, Responsive Design

PROJECTS

CodeArena: Full-Stack Competitive Programming Platform *Mar-July 2026*

- Engineered full-stack competitive coding platform with judge architecture (Judge1 for 16+ languages) enabling secure execution and automated test case validation
- Implemented Node.js/Express backend with MongoDB schema and JWT auth; implemented Redis token blocklist, per-user rate-limiting, and Cloudinary integration
- Developed React 19 frontend with Monaco editor, resizable panels, animated tier badges, 365-day heatmaps, Redux state management; integrated Gemini API for AI tutoring and leaderboard ranking

MyPerplexity: RAG-Powered AI Search Engine *Aug-Sep 2025*

- Architected full-stack RAG pipeline using Flutter, FastAPI, and Python to deliver real-time AI search responses with web source attribution
- Integrated Gemini API for LLM synthesis and Tavily API for web retrieval, orchestrating Search → Sort → Generate workflow handling 100+ queries
- Expanded to cross-platform mobile/web app with FastAPI backend (Uvicorn) and Flutter frontend, implementing async data flow and REST APIs

Dhara-Vaidya: AI Crop Disease Classification Ecosystem *Mar-Apr 2026*

- Led agricultural AI ecosystem using Flutter and FastAPI, deploying dual ResNet-18 CNN models to achieve 97.5% diagnostic accuracy across 38+ crop disease categories
- Simplified computer vision pipeline processing drone telemetry, farm GIS heatmaps, and image uploads with sub-200ms model inference latency
- Combined Redis caching and image compression pipelines, optimizing API response times by 45% and enabling reliable offline-first diagnostics for low-bandwidth rural environments

ACHIEVEMENTS (6x Hackathon Winner)

1st Place – Eco-Code Hackathon Sep 2026

- Built EcoSort automated waste management system with AI camera (18 waste categories), robotic sorting arm, and smart rover dashboard, competing against 15+ teams

Crop Disease AI Project – SRM Builds 7.0, IOTHON, Code Veda 2.0, Eco-Vision *Mar–Apr 2026*

- Iterated the same Flutter-based crop disease diagnosis and IoT rover project across three hackathons: Runner-Up at SRM Builds 7.0, Runner-Up at IOTHON, and 1st Place at Code Veda 2.0; added farm mapping, drone survey booking, heatmaps, rover telemetry, and dual ResNet18 CNN models achieving 97.5% accuracy

Quant Craft Hackathon - 2nd Place *May 2026*

- Innovated ROC, a robotics development desktop platform featuring robot configuration, drag-and-drop visual programming, macro automation, 3D simulation, and custom control dashboards;

CODING PROFILES

- **LeetCode**: Conquered **360+** data structure and algorithm problems on LeetCode, strengthening foundational knowledge in arrays, strings, and linked lists, thereby improving code efficiency by 40% .
- **GeeksforGeeks**: Mastered **80+** data structures and algorithms problems on GeeksforGeeks.