Karrtik Gupta

karrtikgupta9@gmail.com | +91-9821726242 | Portfolio Website | LinkedIn | GitHub

Education

Punjab Engineering College (Deemed University) — Chandigarh, India
B.Tech, Electronics & Communication Engineering (CGPA: 9.14/10) — 2023 – 2027 *Minor Specialization in Artificial Intelligence (GPA: 10.0/10)*

Technical Skills

Languages: Python, C++, JavaScript
AI/ML: LLMs (Gemini API, LangChain), Scikit-learn, Pandas, NumPy, YOLOv8, ByteTrack, Streamlit, Prompt Engineering
Web Backend Development: React, Node.js, Express.js, RESTful APIs, HTML5, CSS3
Databases: PostgreSQL, MySQL, Firebase (NoSQL)
Developer Tools Cloud: Git, GitHub, Microsoft Azure, Docker
Core Concepts: Data Structures & Algorithms, Object-Oriented Programming (OOP), Database Management Systems (DBMS)

Professional Experience

Edunet Foundation (Microsoft-AICTE Initiative) — Remote
AI Intern — May 2025 – June 2025

- Engineered and validated machine learning models for classification and regression tasks on Microsoft Azure, managing the complete project lifecycle from data preprocessing to performance evaluation.
- Gained direct experience in enterprise AI workflows, including data analysis, model deployment, and results documentation on a cloud-based platform.

Projects

VoiceCart — Voice-First E-commerce Platform — *React, Node.js, Express.js, (Generative AI)*
Link

- Built a voice-first e-commerce experience that lets users speak natural shopping commands to add/remove items and manage their cart in real time.
- Implemented an Express.js backend that calls Google Gemini to parse conversational commands.

End-to-End Vehicle & Pedestrian Tracking System — *YOLOv8, ByteTrack, Streamlit, Python*
Link

- Developed a complete computer vision pipeline for real-time object detection and tracking by training a custom YOLOv8-Seg model on over 10,000 annotated images, achieving 92% mAP.
- Integrated the ByteTrack algorithm for persistent multi-object tracking across video frames and deployed the system as an interactive web application via Streamlit.

E-Summit '25 Official Platform — *React, Node.js, Firebase*
Link

- Architected the official website and registration portal for a flagship summit, designed to serve over 2,000 participants and manage more than 1,000 active users.
- Engineered a scalable Firebase backend to handle dynamic event content and real-time user registrations, ensuring high availability and performance during peak traffic.

AI Summary Pro – GenAI Problem Solver — *Python, Gemini API, Prompt Engineering*
Link

- Developed an intelligent automation tool using the Gemini GenAI API to parse and transform ambiguous, unstructured user problems into structured, well-defined technical summaries.
- Designed and implemented advanced prompt engineering strategies to manage complex input variations, ensuring high-quality and consistent outputs for technical documentation.

Leadership Experience

Entrepreneurship and Incubation Cell, PEC — Chandigarh, India
Joint Head, E-Summit '25 — 2025

- Directed technical strategy and operational execution for a flagship summit serving over 2,000 participants, and led partnership efforts to secure corporate sponsorships.

PEC Chandigarh — Chandigarh, India
Sub Head, Startup Fair '24 — 2024

- Spearheaded planning and logistics for an event connecting over 700 students with more than 15 startups, facilitating key industry-academia interactions.
- Optimized company onboarding protocols and communication workflows, improving pre-event coordination efficiency by 30%.