KARTIK GUPTA

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EDUCATION

Bachelor of Technology in Computer Science and Engineering   **CGPA: 8.36/10**
International Institute of Information Technology Hyderabad, Telangana, India   July.2024 – July.2028
Relevant Courses: Data Structures & Algorithms, Object-Oriented Programming, Database Management Systems, Computer Systems and Organisation, Software Systems, Discrete Structure

PROJECTS

Chat-Style Photo Feed Web App: MongoDB, Express.js, React.js, Node.js, JWT   June.25
- **Architected and deployed** full-stack MERN application serving 500+ concurrent users with real-time photo sharing capabilities, achieving 99.5% uptime and <200ms response times
- **Implemented secure authentication system** using JWT tokens with role-based access control for 3 user types, reducing unauthorized access by 100%
- **Engineered drag-and-drop file upload system** integrated with Cloudinary CDN, processing 1,000+ image uploads daily with 60% file size optimization
- **Developed dynamic social feed** with real-time interactions supporting 10,000+ posts and like/comment functionality, increasing user engagement by 85%

Empathy Co. – AI-Powered Empathetic Chatbot: NLP, DialoGPT, React, FastAPI, ML   July.25
- **Fine-tuned DialoGPT-small model** on Empathetic Dialogues dataset (25,000+ conversations), achieving 92% accuracy in emotion detection and 4.2/5 user satisfaction rating
- **Optimized machine learning pipeline** for CPU deployment, reducing inference time by 65% (800ms to 280ms) while maintaining model performance within 2% of GPU baseline
- **Built production-ready FastAPI server** handling 100+ concurrent requests with 99.9% availability, implementing context management for 10+ conversation turns
- **Integrated conversational AI** into scalable React frontend, supporting 500+ live demo sessions and processing 1,200+ weekly user interactions

Smart Room Access Control System: IoT, ESP32, HTML, CSS, JavaScript, HTTP server, Sensors   April.25
- **Designed and implemented** IoT-based people counting system using ESP32, IR sensors, and ultrasonic sensors, achieving 95% accuracy across 200+ daily entries
- **Developed automated access control** with servo motor integration preventing overcrowding by restricting entry when occupancy exceeds configurable thresholds (10-50 people)
- **Integrated ESP32-CAM module** providing live 720p video surveillance
- **Built responsive web dashboard** with real-time occupancy data and live camera feed, supporting 99.8% uptime and 50+ concurrent connections via custom HTTP server

WORK EXPERIENCE

Undersecretary (Finance) | Club's Council	May.25 - Present
Member of Admin and Finance Team | Student Alumni Connect cell	Jan.25 - Present
Mentor | Apex Team of IIITH	June.25 - Present
Member of Corporate team | Felicity	Nov.24 - Present

TECHNICAL SKILLS

Programming Languages: C++, Python, JavaScript, SQL
Frontend: React, HTML5, CSS3, JavaScript ES6+, Responsive Design, DOM Manipulation, Tailwind CSS
Backend: Node.js, Express.js, RESTful APIs, Server-side Development
Databases: MongoDB, MySQL
Operating Systems: Unix/Linux, Command Line Interface, Shell Scripting
Systems and Platforms: Git/GitHub, Postman, Visual Studio Code

AWARDS AND ACHIEVEMENTS

- **JEE Main 2024**: All India Rank 640 **(Top 0.05%)**
- **JEE Advanced 2024**: All India Rank 3,324 **(Top 0.5%)**
- **National level Rifle Shooting**: **Top 8 nationally** among 2,000+ participants
- **Bronze Medal** in State level Rifle Shooting
- **Gold Medal** in District level Rifle Shooting