Aryan Rastogi

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EDUCATION

Manipal University Jaipur *Sept 2024 - Jul 2028*
B.Tech in Computer Science and Engineering *CGPA: 9.14/10*

SKILLS

Languages: Python, C++, SQL, TypeScript
Machine Learning & AI Frameworks: PyTorch, TensorFlow, scikit-learn, Hugging Face, LangChain, OpenCV
Full Stack Development: React, Next.js, Node.js, REST APIs, Supabase
Tools & Platforms: FastAPI, AWS, Google Cloud Platform, Docker, Kaggle

WORK EXPERIENCE

Elumina Street Solutions (Remote, Jaipur) *March-June 2025*
AI Engineer Intern
- Developed a violence detection model using CNN (MobileNet) + LSTM in TensorFlow for video-based behavior recognition; improved accuracy with focal loss and class weighting.
- Implemented and evaluated a real-time weapon detection system using YOLOv8 and OpenCV.
- Collaborated with the AI research team to analyze model performance, optimize hyperparameters, and enhance detection.

AI²: computAtional linguIstics & vIsion Lab (Jaipur, India) *Jan 2025 - Present*
Research Intern
- Conducting an ablation study on LLM creativity, evaluating the impact of fine-tuning methods (SFT, LoRA, QLoRA, RLHF, DPO) on creative performance using DAT and AUT benchmarks.
- Conducted research project "Human vs ChatGPT: A Text Classification Approach to Authorship Detection" employing transformer-based architectures and machine learning techniques to achieve 99.7% classification accuracy.

PROJECT WORK

RoadEye - AI-BASED ROAD SAFETY AUDIT SYSTEM (IIT MADRAS NRSH 2025)
- Built an end-to-end AI system for automated road infrastructure auditing using computer vision, converting detection metadata (bounding boxes, classes, areas) into structured audit reports. Developed a YOLO-based object detection pipeline to identify road assets and defects, generating risk scores, statistical summaries, and GIS-ready automated pdf audit outputs.

UniWay - MUJ's Campus Navigation Platform
- Developed UniWay, a campus navigation prototype for MUJ featuring navigation, interactive maps, smart search, student services, and future-ready extensions like AI chatbot, crowd heatmaps, volunteer support, API production, 360° street view. Technologies used- ReactJs, Typescript, OSRM Leaflet Google Maps Js API, Places API, Distance matrix API.

GeoVerse-The Geospatial Intelligence Assistant
- Developed an Information Retrieval platform from a Knowledge Graph Based on Dynamic Web Portal Content GeoVerse is an AI-powered conversational assistant that transforms complex satellite data from the MOSDAC portal into instant, contextual answers using NLP, knowledge graphs, and semantic search. Technologies used-Neo4j, FastAPI, Langchain, Transformers, React, Node.js, AI/ML, LLMs API.

Prompt2Plugin – AI-Powered Chrome Extension & Workflow Generator
- Developed a platform that converts natural language prompts into fully functional Chrome extensions and n8n automation workflows. Simplifies development by generating code, logic, and structure directly from user intent. Technologies used- ReactJs, Typescript, Gemini API, n8n. Technologies used-Neo4j, FastAPI, Langchain, Transformers, React, Node.js, AI/ML, LLMs API.

ACHIEVEMENTS

- **National Road Safety Hackathon:** Shortlisted among the top 10 finalist teams nationwide, held at IIT Madras.
- **Uniway Hackathon Winner**: Secured 1st place and won cash prize and got an opportunity to work on a project with Southern Federal University, Russia
- **Solana Bounty Winner**: Won a prize of $60 and became Global Superteam Contributor
- **Brandit Hackathon Winner**: Secured 2nd place and won a cash prize.
- **Student Excellence Award**: Awarded the Student Excellence Award in the 3rd semester.
- **Dean'sList**: Named to the Dean's List in the 2nd semester for academic excellence.