Gaurav Prakash

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SUMMARY

Data and AI Intern with proven experience designing AI solutions at IBM India. Developed retrieval augmented generation chatbots and integrated advanced language model frameworks using Python and Django. Brings strong programming skills, machine learning fundamentals, and a collaborative mindset to contribute effectively in research-driven AI projects.

EDUCATION

National Institute of Technology Karnataka **Dec 2021 - May 2025**
Bachelor of Technology, Information Technology

The Indian School **Apr 2019 - Jun 2021**
Higher Secondary XII CBSE

EXPERIENCE

IBM India **May 2024 - Jul 2024**
Data and AI Intern *IBM India*
Collaborated with IBM Consulting's Data and Technology Transformation (DTT) team to support AI solution initiatives and foster a collaborative, research-oriented environment.

- Designed a Retrieval Augmented Generation (RAG) sales chatbot for Parle sales, integrating SQL and PDF data queries to deliver tailored sales pitches and prototype scalable AI applications.
- Developed a WhatsApp interface using Twilio's REST API and a Django backend to leverage Langchain's Large Language Models in practical, real-world use cases.
- Executed a Python-based geospatial analysis with Google Maps API to optimize Parle's sales strategy, demonstrating adaptability to various AI-driven tasks and methodologies.

PROJECTS

Refining LLMs with RL for Reducing AI Content | Research Paper **Jan 2024 - Apr 2024**

- Leveraged the capabilities of Reinforcement Learning to fine-tune LLMs so as to generate text that resembles human language by making it less identifiable as AI content.
- Applied the Proximal Policy Optimization algorithm to fine tune a FLAN-T5 LLM for dialogue summarization.
- Achieved a 28% reduction in the AI content without affecting the meaning of generated text,
- To be presented at IEEE CONECCT-2024, held at IISc Bangalore.

Driver Drowsiness Detection System | TensorFlow, OpenCV **Jan 2024 - Apr 2024**

- Developed a real-time drowsiness detection system that monitors eye states to identify prolonged eye closures.
- Trained a CNN on 10,000 eye images labeled "open" or "closed," augmented with synthetic data for improved accuracy.
- Utilized OpenCV to capture webcam video, score each frame as open or closed, and trigger an alarm upon exceeding the threshold score.

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, MySQL, HTML/CSS, JavaScript
- **Libraries and Frameworks:** Langchain, Django, GeoPandas, TensorFlow, NumPy, Matplotlib

EXTRA CURRICULAR ACTIVITIES AND ACHIEVEMENTS

Web Enthusiasts Club | *Student Member* **Nov 2022 - Present**

- Held various Knowledge Sharing Sessions (KSS)

Music Club | *Club Member* **Nov 2022 - Present**

- Participated and helped organise the Music Club Night

Spicmacay NITK | *Social Media Co-ordinator* **Feb 2022 - Present**

- Hosted the annual flagship event "Aradhana" along with various music workshops

ACHIEVEMENTS

- **Incident NITK 1st Place:**Placed first in "Raaga Rhapsody", an inter-college singing competition organized by Incident NITK
- **NITK Football Team:**Coordinated the annual NITK football cup and achieved second place.