Gaurav Prakash

📞 +1 (510)-980-1988 | ✉ gauravprakash2104@gmail.com | 🔗 gaurav-prakash | 🐙 Gauravp2104

EDUCATION

University of Maryland — College Park, MD
*Master's in **Data Science*** — *Sep 2025 – Present*

National Institute of Technology Karnataka — Surathkal, Karnataka
*Bachelor of Technology in **Information Technology*** — *Dec 2021 – May 2025*

The Indian School — Bahrain
*Higher Secondary XII CBSE, Percentage - **96.2%*** — *Apr 2019 – June 2021*

EXPERIENCE

Analytics Intern | *GlobalFoundries* — April 2025 – August 2025
- Developed **NewHire Assistant**, a **RAG chatbot** to assist new employees with queries on company policies, onboarding steps, and internal procedures.
- Implemented **location-based policy routing** and integrated GPT-4o for generating relevant and accurate responses.
- Deployed the chatbot on Microsoft Teams using **Copilot Agents**, tested by over 100+ active users.
- Contributed to a **Candidate Success Modeling** project by creating an NER-based resume parser to extract key details and compute a job fitment score against job descriptions.

Data and AI Intern | *IBM India* — May 2024 - July 2024
- Worked with IBM Consulting's Data and Technology Transformation (DTT) team.
- Designed a **Retrieval Augmented Generation (RAG)** sales chatbot for Parle sales, integrating SQL and PDF data queries for tailored sales pitches.
- Implemented a WhatsApp interface using Twilio sandbox and a **FastAPI backend** for LangChain's LLMs.
- Performed **geospatial analysis** with Google Maps API to optimize Parle's sales strategy using local demographic data.

PROJECTS

Inductive and Scalable Twitter Bot Detection via Heterogeneous GraphSAINT | *PyTorch* — Jan 2025
- Modelled Twitter as a heterogeneous graph with edges encoding multiple user-tweet-list relations.
- Implemented a proof-of-concept **GraphSAINT** prototype using IMDb dataset, matching state-of-the-art node classification performance.
- Applied edge-type normalization on Twibot-22, enhancing learning over skewed connectivity patterns.
- Validated the inductive generalization ability on Twibot-20, achieving 87.38% F1-score.

Refining LLMs with RL for Human-like Text Generation | *Research Paper* 📄 — Jan 2024 – Apr 2024
- Applied Reinforcement Learning using **Proximal Policy Optimization (PPO)** to fine-tune a FLAN-T5 model for dialogue summarization, reducing AI detectability while preserving meaning.
- Performed **Parameter Efficient Fine-Tuning** using **LoRA (Low-Rank Adaptation)** to optimize model weights without full retraining.
- Achieved a **28% reduction** in AI-detectable content compared to baseline outputs.
- Presented at **IEEE CONECCT-2024**, IISc Bangalore.

Campus Food Delivery Web App with Django | *Python, Django, Bootstrap* — May 2023
- Developed a user-friendly web application enabling students to select restaurants, choose food items, and place delivery orders.
- Implemented an **admin dashboard** for restaurants to manage orders and update statuses.
- Created a **customer dashboard** displaying order history and live order statuses.
- Integrated **PayPal API** for secure payments.

TECHNICAL SKILLS

Languages: **Python, C++, MySQL, HTML/CSS, JavaScript**
Libraries/Frameworks: **LangChain, Django, TensorFlow, PyTorch, NumPy, Matplotlib, React.js**
Coursework: **Data Structures and Algorithms, Operating Systems, Computer Networking, Data Analytics, Database Management Systems, Natural Language Processing, Computer Vision**