Maitri Gada

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Education

Carnegie Mellon University   **Pittsburgh, PA**
Master of Science in Artificial Intelligence & Innovation | GPA: **4.0**   **May 2024 – May 2026**
- Coursework: Deep Reinforcement Learning, ML with Graphs, Generative AI, Advanced Natural Language Processing, Intro to Deep Learning, ML in Production, AI Venture Studio, AI Commercialization, Comp. Tech Law, Intro. to Computer Systems

University of Mumbai   **Pune, India**
Bachelor of Engineering in Computer Science | GPA: **9.1**   **Jun 2019 – Jun 2023**
- Relevant Coursework: Data Structures & Algorithms, Computer Organization, Database Management Systems, Distributed Computing

Experience

Chewy Inc – Chewy Pharmacy Engineering   Boston, MA
AI Innovator Intern (Amazon Neptune, openCypher, Python, OpenAI API, LangChain, RAG, FastAPI, React) June 2025 – August 2025
- Engineered an **Amazon Neptune Knowledge Graph** linking 20M+ pets, prescriptions, and products, powering a **KG-RAG veterinary assistant** that slashed per-prescription review time from 10 min to 1 min and cut backlog from **75h to <6h (~92%).**
- Trained a **91%-precision** prescription-quality classifier and auto-generated "approve/fix/why" summaries, lowering vet follow-ups by 70% and enabling bulk approvals in Chewy Pharmacy.
- Built Vet Copilot, an **LLM-powered AI agent** and a KG-driven **product recommendation** system that autonomously read patient and prescription data, generated context-aware suggestions and improved relevance of cross-sell opportunities through the pharmacy portal.

Syven Global Services – ESG Vertical   Delhi, India
Software Engineer (Python, Flutter, FarmOS, Rest APIs, PostgreSQL, Agricultural IoT)   Jul 2022 – Apr 2023
- Spearheaded the development of a farming companion app, with an **XGBoost-powered recommendation engine**, cutting pesticide/fertilizer usage by **35%** and boosting labor productivity by **20%**.
- Developed autonomous **task tracking, geospatial analytics, and data-to-insight pipelines** for real-time farm management.
- Built a dairy farm management system with predictive models for **livestock health forecasting and yield optimization**.

Tata Consultancy Services – AI/ML   Kolkata, India
Software Engineering Intern (OpenCV, Python, Django, SQL)   Jun 2021 – Aug 2021
- Developed an **OCR-powered** retail product labeling and inventory management system for **5K+ products across 100+ stores**.
- Built a **web-based GUI** to democratize access to product data, enabling non-technical users to query, manage, and configure records.

Asit C. Mehta Investment Intermediates Ltd.   Mumbai, India
Software Engineering Intern (Java, Android SDK, MySQL, REST APIs)   Mar 2021 – May 2021
- Assisted in developing a fintech fractional investment platform in precious metals, contributing to **Android (Java) features, Spring Boot APIs, and MySQL** design; launched Oct 2022 with **5K+ downloads and 200+ MAUs**.

Projects & Research

Cadence Smart Health-Focused Dog-Collar | AI Venture Studio (Founding ML Engineer)   Jan 2025 – May 2025
- Developed a **multi-modal AI** model fusing acoustic, movement, and biometric data to detect pet stress, fatigue and health anomalies.
- Built a deep learning-based **bark classification model** for emotion detection, implemented **anomaly detection** for vital sign/activity monitoring and designed a dashboard for **delivering real-time personalized insights** to pet owners and veterinarians.

Movie Recommendation System (ML in Production)   Jan 2025 – May 2025
- Engineered a production-grade movie recommender with **PostgreSQL, Kafka, and modular pipelines**, enabling real-time evaluation and scalable data management.
- Implemented **canary testing, CI/CD, and MLflow provenance tracking**, ensuring reliable deployments and secure experimentation in a cloud-like environment.

Retrieval-Augmented Generation (RAG) System for Domain-Specific QA   Jan 2025 – Mar 2025
- Implemented an end-to-end **RAG using LangChain and Llama 2** to answer factual and event-based questions about Pittsburgh and CMU.
- Built a custom knowledge base, implemented document retrieval and optimized response generation for better accuracy.

Neural Machine Translation using RNNs & Attention   Jan 2022 – Aug 2022
- Developed & evaluated 8 NMT models using **LSTM, GRU, and attention mechanisms** for Western-Indian languages, enhancing translation precision. Results published in **IEEE Xplore.**

Technical Skills

- **Languages:** Python, Java, JavaScript, TypeScript, Swift, Go, SQL, MATLAB, C++
- **ML/ Data Science:** TensorFlow, PyTorch, Scikit-learn, Keras, MLflow, NumPy, Pandas, Matplotlib, NLP
- **Tools & Frameworks**: Git, Docker, Kubernetes, Jenkins, CI/CD, Hadoop, Kafka, Azure, Linux, React, Next.js, Flutter, Django, Flask, FastAPI, REST APIs, MySQL, PostgreSQL, MongoDB, PHP, HTML/CSS, Android App Development
- **Domains:** MLOps, Predictive Modeling, Recommendation Systems, AI Agents, Knowledge Graphs, Reinforcement Learning, Human-AI Interaction, Multimodal Machine Learning, Explainable AI, Cloud Computing, Anomaly Detection, Optimization