

SAMARTH RAJENDRA

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SUMMARY

AI/ML Engineer with 1+ years of experience building production-ready Generative AI solutions, cloud-native pipelines, and data-driven products that deliver measurable business impact. Proficient across AWS, GCP, and GPU optimization, with a portfolio ranging from LLM-powered telecom automation saving millions annually to publishing research in Natural Language Processing and computer vision presented on global stages.

EDUCATION

University of Southern California

August 2025 – Present

Master of Science in Computer Science (Artificial Intelligence), GPA: 4.0/4.0, Los Angeles, CA

PES University

December 2020 – May 2024

Bachelor of Technology in Computer Science, GPA: 8.87/10, Bengaluru, India

SKILLS

Programming: Python, JavaScript, React, R, MySQL/Postgres

AI/ML: TensorFlow, PyTorch, Hugging Face, scikit-learn, Keras, OpenCV,

Cloud & Tools: AWS (SageMaker, DynamoDB, Lambda), GCP (Vertex AI, BigQuery), Jupyter, Streamlit

Development: Pandas, NumPy, Flask, MERN, Langchain, Langraph, DevOps, APIs, Backend

Concepts: Machine Learning, Deep Learning, Generative AI, NLP, Computer Vision, MLOps, Object-Oriented Programming, Cloud Computing, Prompt Engineering, RAG Applications, Fine-Tune Large Language Models

EXPERIENCE

British Telecom Group – Data Science and Gen AI Professional

July 2024 – July 2025

- Architected and launched core modules of Summary Assist Model from config-driven prompt orchestration and fine-tuning to RAG and agentic prompting; decreasing summary rejection rates from 70% to approximately 20% across multiple releases, **supporting 27,000+ active users; potential savings of 10M GBP over five years.**
- Spearheaded customer persona module for DEC (Direct End Customer) using GCP and Gemini to translate site engineer visit notes into plain language (annual potential **600K GBP**).
- Evaluated behaviors of 5+ LLMs like GPT, Claude Sonnet, Llama, Gemini for chatbot application, guiding stakeholders to adopt solutions that **minimizing operational costs by 30% while maintaining response quality.**
- Pioneered automated LLM Evaluation Guide** (RAGAs-based) that streamlined model comparison workflows, cutting issue identification and resolution cycles by 50% and improving team productivity.

British Telecom Group – Associate Software Intern

January 2024 – July 2024

- Designed and implemented LLM pipelines on GCP for contract management and call record summarization, **reducing processing time by 75%.**
- Accelerated pipeline execution from **120s to 20s (83% reduction)** and delivered to production.

PROJECTS

Student Life Optimization (Ongoing): Helping the new grad students to ease up with the process of on boarding into the program. **50+ parameters** considered to give the best schedule for the students.

Cricket Scenario Recommender System Engineered first-of-its-kind BERT-based NLP system analyzing 500+ match scenarios to recommend field placements with **85% tactical accuracy** *WorldS4 London 2023, Springer.*

Agricultural Yield Prediction with Satellite Data – Trained LSTM models using 12 years of MODIS imagery and NDVI metrics, achieving **RMSE of 0.12** for robust yield forecasting in Karnataka. *ICICC 2024, Springer.*

Vision Transformer Street Scene Segmentation – Implemented ViT architecture for urban scene classification, achieving **96% accuracy** on Cityscapes dataset through optimized patch embedding strategies. *GitHub.*