Mohit Kundu

Nashville, TN | github.com/Mohit-Kundu | linkedin.com/in/mohit-kundu-cs | medium.com/@moh8.kundu

mohit-kundu.github.io

Education

Master of Science, Computer Science   08/2022 – 05/2024
Indiana University   Bloomington, Indiana

Skills

Programming Languages   **Frameworks**
Python, R, JavaScript, C++, Go, SQL   ML: TensorFlow, PyTorch, Scikit-learn, Langchain
                                                                                      Data Science: Numpy, Pandas, Matplotlib, Spark
Certifications   Deployment: GCP, Docker, Kubernetes, Flask, React
Google Associate Cloud Engineer

Professional Experience

Machine Learning Engineer, *Kanini*   05/2025 – Present
- Automated cloud infrastructure provisioning with **LLM-powered agents**   Nashville (Remote)
  (LangGraph & Gemini), reducing setup time by **70%**.
- Designed and fine-tuned **AI transcription pipelines** on medical terminology,
  cutting documentation effort by **40%** and boosting accuracy by **30%**.
- Developed **HIPAA-compliant chat platforms on GCP (Node.js, Pub/Sub,
  Firestore)** with **ML/NLP triage**, reducing response time by **20%.**
- Streamlined deployments with **GitLab CI/CD & Terraform**, achieving **99.9%**
  uptime and faster release cycles.

Software Developer - ML Frameworks, *AfterQuery Experts*   03/2025 – 05/2025
- Contributed to **TensorFlow, PyTorch, Pandas** by resolving **25+ critical bugs** and   New York, NY
  adding **10+ features.**
- Wrote **75+ CI/CD-integrated test cases** ensuring reliable open-source deployments.

Data Scientist, *Project 990*   08/2024 – 05/2025
- Designed **ETL pipelines (SQL, Pandas, PySpark)** to process **2M+ rows**, reducing   New York, NY
  runtime **30%.**
- Fine-tuned **Llama & Mistral 7B** with **LoRA/QLoRA** boosting classification
  accuracy to **92%.**
- Uncovered key drivers for campaign optimization through **causal inference** and
  multicollinearity testing.

Machine Learning Researcher, *Kelley School of Business*   01/2024 – 04/2024
- Boosted next-item prediction accuracy by **37%** by developing a **transformer-based**   Bloomington, IN
  sequential recommendation system.
- Identified key factors influencing marketing ROI through **clustering, factor
  analysis,** and **mixed market modeling**, generating actionable insights.

Machine Learning Engineer, *Hearthealth Technologies*   08/2021 – 07/2022
- Developed **neural networks (PyTorch, scikit-learn, OpenCV)** achieving **95%**   Bangalore, India
  accuracy in heart disease detection.
- Integrated **U-Net segmentation** into medical imaging workflows resulting in **70%
  faster diagnoses** in clinical settings.

Projects

YieldWatch: AI-Powered Portfolio Analysis Agent
- Built **LangChain agent with Python, OpenAI & Yahoo Finance MCP** to analyze portfolios and detect
  underperforming assets (**85% precision**).
- Automated risk scoring via **Sharpe ratio analysis** to cut manual review time **70%.**

Deepshot AI – Lip Sync Research Collaboration (01/2023 – 03/2023)
- Developed and enhanced a **state-of-the-art lip sync model**, improving synchronization and accuracy by
  extending the **Wav2Lip** codebase.
- Synthesized research findings from leading papers to apply insights to complex **speech-to-video alignment**
  problems.
- Reviewed and advised on the optimization of proprietary **GAN**, **diffusion models**, and **multimodal ML** models
  under NDA.