Bhargavi Kadambari
TX, USA | 469-351-9574 | bhargavikadambari32@gmail.com | LinkedIn | Portfolio | GitHub |

SUMMARY:

AI/ML Engineer with 4+ years of experience in cloud data engineering and advanced machine learning solutions. Strong expertise in LLMs, NLP, GenAI, deep learning, and RAG architectures, with hands-on work in LangChain, vector databases, knowledge graphs, and MLOps. Skilled at building real-time AI systems for fraud detection, interview agents, and predictive analytics using AWS & GCP.

SKILLS:

- **AI/ML Core:** LLMs, NLP, Computer Vision, GenAI, RAG Architecture, AI Agents, Vector Embeddings, LLM Fine-Tuning, Causal Inference, Bayesian Methods, Statistical Analysis, A/B Testing, ML Algorithms, Time Series Forecasting, Recommendation Systems.
- **Frameworks & Tools:** PyTorch, TensorFlow, Keras, Scikit-Learn, HuggingFace Transformers, LangChain, LLAMA, XGBoost, Model Context Protocol (MCP), OpenAI, DeepSeek, Uma.
- **Deep Learning:** ANN, CNN, RNN, LSTM, Transformers, BERT, LoRA, QLoRA, Multi-Head Attention Mechanisms, Neural Network Optimization, Few-Shot Learning, GANs.
- **Data Science & Analytics:** EDA, Data Cleaning, Preprocessing, Feature Engineering, Statistics, Matplotlib, Seaborn, Excel Charts, Tableau, Looker Studio.
- **GenAI & NLP Advanced:** LLM Deployment, Prompt Engineering, Chain-of-Thought, Constitutional AI, Semantic Caching, Knowledge Graphs.
- **MLOps & Engineering:** End-to-End ML Pipelines, Model Training, Testing & Deployment, CI/CD, Docker, Kubernetes, Containerization, Model Monitoring, Model Governance, Git, GitHub, GitHub Copilot, Bitbucket, Distributed Computing.
- **Cloud & Infrastructure:** AWS (S3, EC2, EKS, ECS, ECR, Lambda, Bedrock, SageMaker, EMR, Athena, Batch, Step Functions, Redis), Azure (AML, AKS), Snowflake, Microservices.
- **Data Engineering:** ETL Pipelines, Big Data Processing, Hadoop, Spark, Kafka, Apache Airflow, Real-Time Systems, Data Governance.
- **Databases:** MySQL, NoSQL, Vector Databases (Pinecone, ChromaDB).
- **Programming:** Python, SQL, PySpark, R, OOP Concepts, Numpy, Pandas.
- **Operating Systems:** Linux, UNIX, Windows, MacOS.
- **Developer & Productivity Tools:** Cursor, Windsurf, IntelliJ, Visual Studio, GitHub Copilot.

PROFESSIONAL EXPERIENCE:

Invent Artificial LLC – AI/ML Engineer Intern **May 2025 – Present**

- Built RAG pipeline with Pinecone/ChromaDB, achieving 92% contextual accuracy in Q&A.
- Integrated MCP tools & knowledge graphs, enabling domain-adaptive interview agents.
- Developed multi-modal STT + LLM pipeline, boosting engagement by 40%, and optimized inference latency by 60% via semantic caching.
- Fine-tuned LLMs (OpenAI, DeepSeek, and Uma) with LoRA/QLoRA and applied constitutional AI guardrails for ethical alignment.
- Deployed Dockerized microservices on AWS (EKS, ECS, Lambda, SageMaker) with CI/CD for scalable delivery.
- Designed an AI Interview Agent with TTS + real-time evaluation models (clarity, correctness, confidence).

Data Engineer – GCP| Wipro Technologies **2021 – 2023**

- Designed and optimized ETL pipelines with Dataflow (Apache Beam) and Dataproc (PySpark) for large-scale batch/streaming workloads, applying Spark optimizations for high-volume datasets.
- Migrated legacy systems to BigQuery, using partitioning and clustering strategies that cut query latency by 30% and reduced costs.
- Built real-time streaming pipelines with Pub/Sub and Dataflow, enabling predictive analytics and anomaly detection with near-zero latency.
- Automated orchestration with Cloud Composer (Airflow) and implemented data quality/governance with GCP Data Catalog and custom validation scripts.
- Developed ML-ready feature datasets with data scientists and delivered scalable, cloud-native architectures that accelerated reporting and AI/ML experimentation.

Data Engineer – AWS | Wipro Technologies **2021 – 2022**

- Architected a cloud-based data lake on Amazon S3 and integrated Amazon Redshift for optimized transformations and incremental loading, improving query performance by 35%.
- Designed and automated ETL pipelines with AWS Glue and Step Functions, cutting data processing times by 45%.
- Built real-time ingestion pipelines using Kafka and AWS Lambda, reducing reporting latency by 40% and enabling near real-time analytics.
- Orchestrated workflows with Apache Airflow and implemented monitoring, validation, and governance to ensure scalable, reliable, and compliant pipelines.
- Collaborated with data science teams to prepare ML feature datasets and delivered an end-to-end cloud-native architecture that accelerated predictive analytics and real-time reporting.

Application Engineer – TCS iON **2020 – 2021**

- Developed and deployed Java apps with Docker and Docker Compose, ensuring portability and smooth multi-container orchestration with databases, APIs, and services.
- Automated CI/CD pipelines with Git and container registries, streamlining build, test, and deployment while cutting release time by 40%.
- Optimized container performance and lifecycle management, improving efficiency, scalability, and resource utilization across environments.

ACADEMIC PROJECTS

FinGuard – AI Fraud Detection Platform:

- Designed and deployed a fraud detection system using ensemble ML models (Logistic Regression, Random Forest, Neural Networks), achieving 99% detection accuracy on high-volume transaction data
- Implemented Explainable AI (XAI) techniques with SHAP and LIME for transparent fraud scoring and regulatory compliance

NYC 311 Data Pipeline & Forecasting:

- Designed an end-to-end cloud data pipeline on Google Cloud Platform (BigQuery, Dataflow, Dataproc, Cloud Composer) to process millions of NYC 311 service requests
- Automated ETL workflows using PySpark on Dataproc, handling structured and unstructured datasets with data validation and governance checks

CERTIFICATIONS:

- Microsoft Certified: Azure AI Fundamentals (AI-900)
- Google Cloud Certified Professional Data Engineer
- Oracle Database SQL Certified Associate (1Z0-071)

EDUCATION:

- **University Of North Texas** **Jan 2024 - Present**
  Masters in Data Science
- **Jawaharlal Nehru Technological University** **July 2017 - Jun 2021**
  Bachelors in Electronics & Communication