ASHWITHA REDDY POLASANI

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SUMMARY

Data Scientist and AI/ML Engineer with 4+ years of experience delivering scalable machine learning and Generative AI solutions across healthcare and IT services domains. Proficient in Python, TensorFlow, PyTorch, AWS, and GCP with hands-on expertise in LLMs, NLP, computer vision, MLOps, and real-time data pipelines. Proven ability to design HIPAA-compliant analytics workflows, deploy GenAI chatbots, and lead CI/CD automation in Agile environments. Adept at building end-to-end ML pipelines, predictive models, and deep learning architectures to drive business intelligence, system reliability, and process optimization.

EDUCATION

Master of Science in Computer Science | **Northwest Missouri State University, Maryville, MO**   May 2025

Bachelor of Technology in Information Technology | **Sreenidhi Institute of Science and Technology, Hyderabad, India**   Jun 2023

SKILLS

Methodologies: SDLC, Agile, Waterfall
Languages: Python, R, SQL, MATLAB, HTML, CSS
Frameworks & Libraries: TensorFlow, PyTorch, Keras, Scikit-Learn, NumPy, Pandas, Matplotlib, Flask, Transformers Architecture
Big Data & ETL Tools: PySpark, Apache Spark, Hadoop, MapReduce, HDFS, Spark Streaming
Databases: MySQL, PostgreSQL, SQL Server 2008, MongoDB
Data Visualization: Tableau, Power BI, Excel (Pivot Tables, VLOOKUP)
Machine Learning & Deep Learning: Linear/Logistic Regression, Clustering, SVM, PCA, Random Forest, Boosting, Lasso, Ridge, CNN, RNN, Fine-tuning & Transfer Learning
Generative AI & LLMs: Foundation Models (GPT, LLaMA, Claude), Prompt Engineering, Tokenization (BPE, WordPiece), Reinforcement Learning from Human Feedback (RLHF)
Data Management: S3, Glue
Tools & APIs: Postman, REST APIs, JSON Parsing
IDEs: Jupyter Notebook, PyCharm, Visual Studio Code
Operating Systems: Windows
Soft Skills: Problem-Solving, Communication, Collaboration

EXPERIENCE

Anthem Health, USA | Data Scientist   **Jan 2025 - Present**

- Developed and deployed ML models (Logistic Regression, Gradient Boosting, CNNs) in an Agile environment for fraud detection, readmission risk, and population health, reducing healthcare data processing time by 25%.
- Designed AI/ML solutions using SageMaker, Bedrock, and LangChain for KED/readmission scoring, care planning, and NLP based medical note summarization to enhance care team productivity.
- Engineered secure AWS-based data pipelines (Glue, Redshift, S3) for real-time claims analytics and utilization tracking, delivered Tableau and SSRS dashboards, improving latency by 30–40%.
- Integrated EHR data with RAG models and deployed GenAI chatbots using Bedrock, boosting digital engagement and improving member self-service by 20% across care navigation.
- Automated HIPAA-compliant model deployment using CodePipeline, Docker and GCP Kubernetes and ensured scalable, audit-ready analytics workflows aligned with CMS and NCQA standards.
- Built high-performance PostgreSQL and Oracle databases to support claims, eligibility, and coordination workflows with HIPAA-compliant design and optimized query performance.

KPIT, India | AI/ML Engineer   **Jun 2020 - Nov 2023**

- Deployed containerized AI/ML models and GenAI apps using Docker, Kubernetes, and Terraform on AWS & GCP, ensuring elastic scalability and high-availability for predictive diagnostics and IT automation workflows.
- Built deep learning solutions with TensorFlow, PyTorch, and Keras for computer vision and anomaly detection, improving system reliability and reducing false positives across IT monitoring pipelines.
- Led MLOps adoption, mentoring junior engineers on CI/CD pipelines, feature store design, and secure deployments using Git, Jenkins, AWS CloudFormation, and Infrastructure-as-Code practices.
- Implemented supervised, unsupervised, and reinforcement learning models in Agile projects, delivered XGBoost-based failure prediction reducing downtime by 15% and BERT-powered NLP pipelines for root cause automation.
- Developed and deployed CNN, RNN, LSTM, and Transformer models for real-time anomaly detection and AIOps telemetry, achieving over 90% classification accuracy and reducing MTTR.
- Engineered scalable ML pipelines using AWS SageMaker, Lambda, Redshift, and EC2 to process infrastructure telemetry and forecast maintenance needs via ARIMA, Prophet, and custom signal preprocessing.
- Fine-tuned LLMs using Hugging Face Transformers for IT ticket summarization and GenAI chatbots, integrated with ITSM platforms to improve self-service resolution and operational efficiency.