Sreeja Akuthota | AI Engineer

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SUMMARY

AI Engineer with **5+ years of experience** deploying machine learning, NLP, and predictive analytics in healthcare, insurance, and enterprise domains. Proficient in Python, SQL, PyTorch, TensorFlow, and Hugging Face with production deployments on AWS SageMaker, Azure ML, and GCP Vertex AI. Skilled in ETL automation, RAG workflows, and dashboard integration using Tableau and Power BI, consistently delivering measurable improvements in accuracy, efficiency, and decision-making through scalable, production-ready AI solutions.

TECHNICAL SKILLS

Programming: Python, SQL, Java
Machine Learning: Regression, Classification, Clustering, Model Evaluation, Feature Engineering
Deep Learning: PyTorch, TensorFlow, CNN, RNN, Transformers
NLP: Text Preprocessing, Sentiment Analysis, Hugging Face (LLM basics)
Generative AI: Prompt Engineering, Fine-Tuning (entry-level), RAG (exposure)
MLOps: MLflow, Docker, Fast API, REST APIs
Cloud: AWS SageMaker, Azure ML, GCP Vertex AI
Data Engineering: ETL Basics, Data Preprocessing, Apache Airflow (exposure)
Visualization: Power BI, Tableau, Matplotlib
Databases: PostgreSQL, MySQL, MongoDB

PROFESSIONAL EXPERIENCE

VCU Health Systems, USA **Mar 2025 - Current**
Business Intelligence Developer/Database Reporting Analyst

- Automated Tableau dashboards and Excel VBA reports with AI anomaly detection, reducing manual reporting effort by 35% hospital wide.
- Improved SQL workflows in Epic Slicer Dicer using machine learning validation, improving dataset accuracy by 40% across clinical operations.
- Developed KPI frameworks with predictive analytics, identifying discrepancies early and reducing reporting errors by 25% across compliance processes.
- Delivered BI dashboards are integrated with AI forecasting models, increasing stakeholder adoption 30% and accelerating operational decision-making.
- Applied regression, ANOVA, and Python-based machine learning algorithms, uncovering drivers influencing hospital performance improvement effectively.

Liberty Mutual Insurance, USA **Jul 2024 - Apr 2025**
AI Engineer

- Deployed Hugging Face Transformers on SageMaker, raising NLP accuracy 22% with enhanced preprocessing pipelines using Python.
- Containerized PyTorch models with Docker, deployed via Fast API APIs, reducing enterprise inference latency by 20% consistently.
- Built Retrieval-Augmented Generation workflows using SQL vector search, improving knowledge retrieval accuracy 25% across business teams.
- Parallelized CNN and RNN training on GPU clusters, reducing training duration by 18% across multiple workloads.
- Designed Tableau dashboards for executives, accelerating decision-making efficiency 30% by visualizing real-time customer sentiment trends.
- Monitored production models with MLflow, lowering rollback incidents 40% by detecting drift and ensuring reproducibility.

Mphasis, India **Apr 2020 - Aug 2022**
AI Engineer

- Automated ETL workflows using Python, SQL, and Airflow, decreasing manual preprocessing workload 40% across projects.
- Tuned regression models with hyperparameter optimization, increasing demand forecast accuracy 18% for business planning.
- Built Hugging Face pipelines, raising text classification precision 27% through sentiment scoring and tokenization techniques.
- Integrated ML models into Azure ML pipelines, cutting deployment failures 30% across environments.
- Embedded AI outputs into applications, expanding solution adoption 20% across enterprise departments effectively.
- Used MLflow for experiment tracking, reducing iteration cycles 25% and ensuring reproducibility consistently.

CitiusTech, India **Aug 2018 - Mar 2020**
ML Engineer

- Developed churn prediction models with scikit-learn, improving classification accuracy 15% for retention-focused initiatives.
- Tuned SQL ETL pipelines, lowering runtime 25% and increasing overall preprocessing efficiency significantly.
- Streamlined PostgreSQL and MongoDB indexing, improving query response performance 20% across datasets.
- Built Tableau dashboards for forecasts, raising 35% by visualizing business insights clearly.
- Standardized TensorFlow and PyTorch scripts, accelerating prototyping cycles 22% and improving reproducibility effectively.
- Deployed ML models into production, reducing integration delays 30% with developer collaboration.

EDUCATION & CERTIFICATION

Master of Science in Business Analytics **Aug 2022 - May 2024**
Clark University, MA, USA

Epic COG170 – Cogito Fundamentals May 2025