Srishti Adkar AI/ML Engineer

srishti@careeremail.net | (206) 851-3009 | USA | LinkedIn | Portfolio | GitHub

Summary

AI/ML Engineer with 3+ years of strong background in machine learning, data engineering, and cloud technologies. Experienced in designing and deploying machine learning models, automating ETL pipelines, and optimizing data workflows to drive business efficiency. Proficient in utilizing tools like Python, SQL, AWS, Azure, and machine learning frameworks such as XGBoost and Random Forest. Skilled in model tuning, data preprocessing, and integrating AI solutions to enhance system performance and support data-driven decision-making in various industries.

Technical Skills

- **Programming Languages**: Python, SQL, Java
- **ML/AI**: Random Forest, XGBoost, CNN, RNN, Autoencoders, GridSearchCV, Hyperparameter Tuning, Feature Engineering
- **Data Engineering**: ETL, Data Wrangling, Data Pipelines, Pandas, NumPy, Scikit-learn
- **Cloud/DevOps**: AWS (Sagemaker, Lambda, EC2), Azure (Data Factory, ML Service), GCP
- **Tools & Technologies**: Docker, AWS Sagemaker, Azure ML, Git, REST APIs, Azure Data Factory, Jupyter
- **Visualization**: Dashboard Development, Data Analysis

Professional Experience

AI/ML Engineer Intern, *HSBC* 11/2024 – Present | Remote, USA

- Worked on development of an advanced Claims Fraud Detection System, collaborating with cross-functional teams to gather requirements and define key fraud detection metrics, aligning closely with business objectives to achieve a 25% gain in fraud detection accuracy.
- Aligned with data engineering teams to design and used a robust ETL pipeline using Python, SQL, and AWS tools, automating data extraction and preprocessing from diverse sources, which led to a 40% progress in data processing efficiency and timeliness.
- Developed and trained a fraud detection model utilizing historical claims data (e.g., claim amounts, claimant history, claim frequency) with machine learning techniques, including Random Forest and XGBoost, resulting in a 30% reduction in fraud detection errors and higher operational reliability.
- Executed advanced hyperparameter tuning using GridSearchCV, optimizing key model parameters such as max depth, learning rate, and number of estimators for XGBoost, driving a 15% increase in model precision and recall.
- Integrated innovative AI-powered anomaly detection through Autoencoder Networks, identifying outlier claims and improving detection of sophisticated fraudulent activities by 20% over traditional methods.
- Collaborated seamlessly with DevOps teams to deploy the optimized model into AWS Sagemaker and Docker for smooth integration into HSBC's claims processing pipeline and cutting claim review time by 35%, further enhancing operational efficiency.

Software Engineer Intern, *St. Francis House* 06/2024 – 09/2024 | Seattle, WA, USA

- Developed data pipelines for automated data ingestion and preprocessing, leveraging Python and SQL to manage large-scale datasets on AWS and GCP.
- Designed SQL queries for sub-second latency and integrated them into REST APIs to support high-traffic production environments.
- Automated data migration between AWS and GCP, ensuring zero data loss by applying data wrangling best practices.
- Implemented a machine learning model (e.g., Random Forest or XGBoost) for predictive analytics, optimizing data workflows and improving data processing efficiency.

ML Engineer, *Atomic Loops Pvt Ltd* 10/2021 – 08/2023 | Pune, India

- Collaborated with cross-functional teams in requirement gathering sessions to understand business objectives, ensuring alignment of the Audio Analysis PoC Project with the company's goals and identifying key performance indicators for accurate prediction.
- Collected, cleaned, and preprocessed large-scale audio data using Python libraries such as Pandas, NumPy, and Scikit-learn, while leveraging Azure Data Factory to automate the ETL pipeline and ensure efficient data integration and storage.
- Developed machine learning models for audio analysis, experimenting with different algorithms like CNNs and RNNs to classify audio into categories such as speech, music, and environmental sounds.
- Applied hyperparameter tuning techniques using GridSearchCV and RandomizedSearchCV to optimize model performance, fine-tuning key parameters to improve classification accuracy and event detection in audio signals.
- Implemented feature engineering strategies using audio processing techniques like MFCC, spectrograms, and chroma features to enhance model prediction capability and capture a more comprehensive view of the audio data.
- Deployed the optimized audio analysis models to production using Azure Machine Learning Service, collaborating closely with the DevOps team to automate deployment pipelines and ensure seamless integration with existing systems.
- Created an interactive dashboard to visualize and analyze audio features and predictions, providing stakeholders with actionable insights and facilitating data-driven decision-making in audio-based applications.

Education

Master of Science in Computer Science **09/2023 – 06/2025**
Seattle University – Seattle, WA

Bachelor of Engineering (Hons) in Computer Science **08/2018 – 07/2022**
Pune University – Pune, India