

AKASH YADAV

ML/Data Engineer | Python Developer

akashyadav1217@ug.cusat.ac.in +49-155-10680242 Siemenstrasse 50A, 12247 Berlin, Germany



EXPERIENCE

Software Engineer – Infrastructure & Data Applications

Nocturne GmbH

Nov 2023 – Apr 2025 Berlin, Germany

- Trained and deployed deep learning models (U-Net, CNN) for medical image segmentation, enabling scalable diagnostic workflows
- Developed MLOps pipelines with model versioning, monitoring, and automated CI/CD integration for continuous AI feature delivery
- Built ingestion, transformation, and validation frameworks integrated with DynamoDB for reliable, low-latency inference
- Designed Django-based web interfaces and RESTful APIs to manage medical image uploads, predictions, and role-based access
- Supported work on integrating LLMs and Model Context Protocol (MCP) for intelligent annotation of image reports

Associate Software Engineer – Data & Platform Team

NPCI

Jul 2022 – Oct 2023 Chennai, India

- Built real-time fraud detection systems on Spark Streaming using ML models to monitor billions of UPI transactions
- Designed ETL workflows and analytics dashboards for audit transparency, compliance reporting, and operational efficiency
- Developed RESTful APIs and telemetry tools to ensure secure and observable transaction data services
- Applied DevOps practices using Docker, Git, and Kubernetes to scale platforms and reduce deployment latency

FEATURED PROJECT

AI-Powered Document Analysis Platform

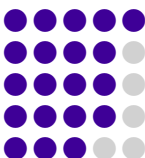
qa-app-8dsm.onrender.com

Personal Project 2025

- Built NLP application using GPT-3.5 API with automatic fallback to free providers ensuring uninterrupted service
- Implemented document processing: PDF extraction, entity recognition, metadata analysis with confidence scoring
- Features: Interactive PDF viewer, chat interface, document analytics, search functionality, responsive dark theme
- Tech Stack: Python Flask backend, React frontend, OpenAI API, LiteLLM for cost-effective AI operations

TECHNICAL PROFICIENCY

Python, SQL, PySpark, Pandas, NumPy
MLOps, Airflow, Docker, Git, Jupyter
Django, FastAPI, Databricks, Spark
AWS (EC2, S3, DynamoDB), GCP (basic)
ETL Pipelines, Redshift, MySQL, Cassandra



EDUCATION

PG Program in AI and ML

IIIT Hyderabad

Mar – Nov 2023

Covered supervised/unsupervised learning, deep learning (CNNs, RNNs), and deployment pipelines

B.Tech in Computer Science

CUSAT

Jul 2018 – Jun 2022

GPA: 7.63/10 | Relevant: DBMS, Data Structures, Operating Systems, Neural Networks

EXPERTISE

- MLOps & Model Deployment
- Model Context Protocol
- Medical Image Segmentation
- Django Backend Development
- Large Language Models
- Cloud-Native ML Services
- AI Pipeline Monitoring

TOOLS & TECHNOLOGIES

- Python Django PySpark SQL
- Airflow Docker Git TensorFlow
- Keras PyTorch NumPy Pandas
- Scikit-learn OpenCV DynamoDB
- AWS S3/EC2 Databricks
- Kubernetes GCP

AWARDS

- Star Performer of the Month – NPCI
- 1st Prize – NSS Community Development
- Best Speaker – Intra-College Debate
- Winner – Badminton (Doubles) CUSAT

SOFT SKILLS

- Collaboration Communication
- Analytical Thinking Problem Solving
- Initiative Team Player