

Bhavya E

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<https://bhavyaedara7.github.io/Bhavya-portfolio/>

Professional Summary

Experienced Full Stack Python Developer with overall 4 years of expertise in building backend APIs, data pipelines, and AI/ML applications. Skilled at working with cloud platforms to deploy real-time systems for fraud detection, portfolio management, and health risk analytics. Known for integrating complex ML models and automating scalable workflows across finance, healthcare, and public service environments using tools like AWS, FastAPI, Spark, and modern ML frameworks.

Technical Skills

- **Languages & Frameworks:** Python, SQL, Java, Flask, Fast API, Django, Angular, HTML, JavaScript
- **Cloud Platforms:** AWS (SageMaker, Lambda, EKS, Glue, S3), Azure (AKS, Event Hubs, Monitor)
- **Data Engineering:** PySpark, Apache Kafka, AWS Kinesis, Snowflake, Cosmos DB, Hive
- **Machine Learning:** scikit-learn, TensorFlow, PyTorch, XGBoost, GPT, BERT, LSTM, Isolation Forest
- **DevOps & CI/CD:** Docker, Terraform, Jenkins, GitHub Actions, Azure DevOps
- **Monitoring & BI Tools:** Prometheus, Grafana, Power BI, Splunk, CloudWatch, Tableau
- **Workflow & MLOps:** Apache Airflow, ML flow, Celery, Redis, pytest, Postman, Git
- **Web Technologies & APIs:** RESTful APIs, GraphQL, WebSockets, JSON, Material UI
- **UI/UX & Design Tools:** Figma, Adobe XD, Framer, Wireframing, Prototyping, Interaction Design

Professional Experience

Alliant Group

Apr 2024 - Present

Full Stack Python Developer (AI/ML)

Remote

- Developed robust API services using Flask and Fast API to serve fraud detection results powered by trained ML models, which processed financial transactions in real-time.
- Integrated streaming tools like Kafka and AWS Kinesis to enable low-latency ingestion and scoring of transaction data, improving detection response times.
- Built and deployed LSTM and Isolation Forest models using AWS SageMaker, embedding their outputs directly into backend services to enable actionable anomaly scoring.
- Designed pipelines using GPT-4 and LLaMA to generate transaction summaries and contextual alerts, enhancing accuracy and decision-making for compliance reviewers.
- Automated asynchronous backend processing using Celery with Redis, reducing bottlenecks in transaction evaluations and helping handle large data loads efficiently.
- Led frontend integration using Angular and Power BI, enabling stakeholders to interactively view high-risk transactions and model-generated explanations.
- Deployed containerized services using Docker and Terraform on AWS EKS, ensuring resilient and scalable environments for fraud detection workflows.

Marsh

May 2023 - Mar 2024

Full Stack Python Developer (AI/ML)

Overland Park, KS

- Designed and implemented API-based market data ingestion pipelines using Fast API and Django, connecting streaming inputs to Snowflake through AWS Glue and Lambda services.
- Integrated Kafka and Kinesis to stream live financial data and built validation utilities in Python to ensure accuracy before downstream model processing.
- Developed and tested anomaly detection models using XG Boost and scikit-learn in SageMaker, embedding the predictions into portfolio risk APIs for real-time scoring.
- Automated infrastructure provisioning using Terraform and containerized all services with Docker, deploying on AWS EKS to support scalable microservices.
- Created Angular 12 dashboards and embedded Power BI visuals to present portfolio risk metrics and alert trends for investment teams and leadership.
- Built CI/CD pipelines using Jenkins and GitHub Actions to support rapid deployment of both ML models and backend APIs with zero downtime.
- Used Grafana and CloudWatch to monitor pipeline health, API performance, and model drift, ensuring compliance with SLAs and audit expectations.

Abbott

Jan 2021 - Jul 2022

Python Developer (ML)

India

- Developed real-time healthcare APIs using Fast API and Flask on Azure App Service, allowing public health teams to access dynamic disease risk scores powered by ML models.

- Built ETL pipelines using Azure Event Hubs to ingest live patient data and lab results, then structured and stored them in Snowflake and Cosmos DB for modeling and analysis.
- Designed and trained time series models using TensorFlow and scikit-learn to identify high-risk trends across different patient populations and regions.
- Deployed models through SageMaker and Azure DevOps workflows and monitored their performance with MLflow to ensure predictions remained stable and interpretable.
- Built frontend dashboards using Angular and embedded Power BI for health agency users to visualize outbreaks, response levels, and alert patterns.
- Automated backend task queues with Celery and Redis, ensuring timely generation of alerts and efficient resource use during peak demand.
- Involved in designing secure API routes with OAuth2 and Pydantic validation to ensure privacy compliance and robust input handling.

Certifications

- **Google UX Design specialisation:** Proficient in UX design process using user research, wireframes, and prototyping.
- **Crash Course on Python By Google:** Skilled in Python scripting and automation using strings, lists and dictionaries.

Education Details

University Of Missouri (UMKC)

Dec 2023

Masters, Computer Science

SRM University, India

May 2022

Bachelors, Electronics