Ashutosh Das

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PROFESSIONAL SUMMARY

Full Stack Developer with 4+ years of experience in backend and frontend development using Java, ReactJS, Microservices, Kafka, SQL, and Python. Strong background in the banking, payments, and healthcare domains, contributing to scalable product features used by thousands of users. Skilled across the full SDLC, with expertise in cloud (AWS), distributed systems, and cross-functional collaboration.

EDUCATION

SUNY Binghamton, Master of Science in Information Systems (Applied Machine Learning) (3.59)   *May 2025*
University of Pune, Bachelor of Computer Science   *June 2018*

PROFESSIONAL EXPERIENCE

Michigan Health Information Network, *Health IT Intern | Lansing,* MI   *June 2024 - Present*
- Architected Spring Boot microservices and REST APIs to unify clinical + payment data across 10+ hospitals, elevating interoperability and compliance.
- Built ReactJS interfaces for clinicians to securely access and update records, cutting lookup times by 30%.
- Orchestrated Kafka data streams handling > 1 M transactions / month, optimizing latency 40% and ensuring reliable data flow.
- Deployed and governed AWS EC2 + S3 + IAM stacks with CloudWatch alerts, sustaining 99.9% uptime and full HIPAA adherence.
- Contributed to AI-based cost-optimization and tagging automation for AWS Workspaces, integrating directly with Active Directory.

Knorex, *Software Engineer | Pune, India*   *February 2021 - August 2023*
- Spearheaded modular ReactJS UI systems powering 10K+ live ad campaigns, elevating usability and platform scalability.
- Optimized GraphQL front-end queries and caching, accelerating analytics render speed 30% for advertisers.
- Engineered Java microservices for billing / payments, guaranteeing accuracy across high-volume transactions.
- Automated Kafka event pipelines ingesting 100K+ daily events, boosting real-time reporting precision and monitoring.
- Productized reusable React component library adopted company-wide, amplifying development velocity and UI consistency.

IBM, *Systems Engineer | Mumbai, India*   *April 2019 - November 2020*
- Devised JVM microservices to digitize insurance / payment flows, scaling to millions of weekly transactions with robust SLAs.
- Designed ReactJS claims interface reducing agent training cycles 20% and streamlining case handling.
- Automated SQL + Kafka ETL pipelines, elevating data reconciliation throughput 25% and audit accuracy.
- Fortified microservice reliability via advanced exception handling, cutting outages 30%.
- Consulted with banking stakeholders to translate regulatory rules into validated compliance workflows.

PROJECT EXPERIENCE

AI-Powered Football Analytics System (Academic Research, Binghamton University)
- Built a computer vision pipeline to detect, track, and classify players and the ball using YOLOv8 and K-Means clustering.
- Implemented camera motion correction and perspective mapping to compute real-world player speeds and distances.
- Completed network analysis using NetworkX to quantify passing efficiency, visualize play patterns, and identify key players.

Intelligent Document Q&A System
- Developed an LLM-based Q&A system that extracts insights from PDFs and databases using retrieval-augmented generation.
- Integrated FAISS embeddings with LangChain for contextual multi-document reasoning and relevance-based answer ranking.
- Deployed an interactive Streamlit UI enabling natural language document querying with improved precision and usability.

AI-Driven Health Insights Platform
- Trained ML models to predict hospital readmission risks from EHR data, achieving 87% accuracy with Random Forest.
- Exposed Flask REST APIs for predictions and built dashboards to visualize feature impact and clinical outcomes.
- Deployed on AWS EC2 with Docker containers and CloudWatch monitoring to ensure scalable and reliable performance..

SKILLS

Backend: Python, Django, Flask, Java/Kotlin (JVM), FastAPI, SQL, GraphQL, REST APIs
AI / ML: Scikit-learn, TensorFlow, PyTorch, OpenCV, LangChain, YOLOv8, Pandas, NumPy, NetworkX, RAG Systems, LLM
Databases / Infrastructure: PostgreSQL, Redis, Kafka, AWS (EC2, S3, IAM, CloudWatch), Docker, CI/CD (GitHub Actions, Jenkins)
Frontend: React.js, TypeScript, Streamlit, Next.js, API Integration (GraphQL/REST)
Tools: Git, Jira, VS Code, Postman, PyCharm, Tableau, MLflow