JYOTIRMOYEE MITRA

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PROFESSIONAL SUMMARY

Python Backend & Data Engineer with 4+ years of experience building production-grade FastAPI/Flask microservices, scalable ETL pipelines, and real-time Kafka streaming systems. Delivered 25% pipeline runtime reduction and 40% faster CI/CD deployments across enterprise environments. Proficient in AWS (Glue, Lambda, S3, Redshift, EMR), async Python, PostgreSQL/MongoDB, Redis caching, Docker, and GitLab/Jenkins CI/CD. Strong foundation in distributed systems, observability, and Agile delivery — targeting senior backend/SDE roles at product-based companies.

TECHNICAL SKILLS

Languages: Python (Advanced), SQL, JavaScript
Frameworks & APIs: FastAPI, Flask, Django, REST APIs, Async Python (asyncio, pytest-asyncio)
Databases & Caching: PostgreSQL, MySQL, MongoDB, OracleDB, Redis, Hive SQL
Cloud & Data Engineering: AWS (Glue, Lambda, S3, Redshift, EMR, Step Functions, API Gateway, CloudWatch, CloudFormation), GCP, PySpark, Kafka, Parquet
DevOps & CI/CD: Docker, Jenkins, GitLab CI/CD, GitHub Actions, Linux
Testing & Observability: pytest, pytest-asyncio, unittest.mock, structured logging, CloudWatch monitoring

PROFESSIONAL EXPERIENCE

Python Backend Developer | eBay (via Prescience)
CortexAI – Analytics & Business Intelligence Platform

- Developed Python backend service modules and REST APIs to power analytical dashboards and BI applications across retail business dimensions.
- Designed and optimized Hive SQL queries with complex joins, aggregations, and multi-dimensional business filters to serve large-scale analytical datasets.
- Integrated backend services with Parquet datasets stored in Google Drive, enabling dynamic data retrieval segmented by retail year and retail week.
- Implemented Redis caching layer to eliminate redundant data retrieval calls, improving backend data-serving efficiency under concurrent dashboard load.
- Investigated query execution bottlenecks and explored concurrent execution strategies to optimize dashboard data-loading performance.
- Developed and validated data-mapping logic across strategic seller segments, business verticals, and global focus categories to ensure accurate reporting.
- Integrated backend API responses with multiple frontend dashboard components, supporting dynamically expanding data and query requirements.

Python Developer | Genpact *Nov 2025 – Present*
Backend automation and security compliance tooling for enterprise-scale environments.

- Built Python automation scripts to retrieve Netskope device status data via REST API, enabling enterprise-wide compliance visibility across 10,000+ devices.
- Implemented secure Bearer token authentication using environment variables and CLI parameters — eliminated hardcoded credentials in the codebase.
- Designed configurable API parameter handling (time-range filters) and JSON response parsing to generate structured CSV compliance reports (hostname, OS, device ID, user, status).
- Standardized output directories and parameterized execution to enable seamless integration into existing reporting pipelines.
- Followed Git workflows (fork → commit → PR) for peer-reviewed, iterative delivery within the automation framework.

Python Developer | Dell Technologies (via UST Global) *Jun 2025 – Oct 2025*
Backend microservices, data engineering, and streaming pipelines in a cloud-native environment.

- Developed FastAPI/Flask async microservices with background schedulers, retry logic, and health-check endpoints — reduced unplanned downtime by improving system reliability.
- Built PySpark ETL pipelines on AWS Glue processing 5M+ daily records from S3 into Redshift/Athena, achieving 25% runtime reduction.

- Designed OracleDB–Redis caching workflows that cut relational DB query load significantly, improving API response times under peak traffic.
- Implemented Kafka consumer services to ingest streams, apply business rule transformations on MongoDB datasets, and write curated results back to MongoDB.
- Wrote comprehensive unit and async test suites using pytest, pytest-asyncio, and unittest.mock, covering APIs, schedulers, DB layers, and Kafka event flows.
- Diagnosed and resolved GitLab CI/CD pipeline failures related to test coverage thresholds, dependency conflicts, and environment inconsistencies.
- Implemented structured logging and centralized error handling across services, improving observability and reducing MTTR.
- Contributed to HLD/LLD documentation and conducted knowledge transfer sessions in Agile sprints.

Python Developer (Data Engineer) | Accenture *Oct 2024 – Feb 2025*

End-to-end development and maintenance of AWS-based ETL log pipelines for Food & Paper (FnP) data.

- Developed AWS Glue PySpark ETL pipelines processing 5M+ records/day from S3, reducing runtime by 25% through job optimization.
- Built Flask-based data validation microservices with PyTest coverage, improving data accuracy to 99.8%.
- Configured Jenkins CI/CD pipelines with automated testing gates and deployment scripts, reducing deployment time by 40%.
- Designed event-driven job orchestration using AWS Glue workflows and trigger-based execution patterns.
- Managed UAT for the Australian market rollout and authored SOPs, achieving 100% audit readiness.
- Mentored 2 junior engineers on pipeline best practices and code review processes.

Senior Software Analyst (Python Developer) | Capgemini *Jul 2021 – Sep 2024*

Backend development for NPOS (Next-Gen Point-of-Sale) applications on AWS.

- Developed and maintained Python backend services for NPOS order and payment flows, supporting high-throughput transaction processing.
- Integrated AWS Lambda, API Gateway, S3, and CloudWatch for serverless backend operations and real-time monitoring.
- Optimized SQL queries and automated workflows to improve transaction reliability and reduce application downtime.
- Managed banner promotion logic and real-time NPOS interface updates; supported deployments with high-availability requirements.
- Actively participated in Agile ceremonies — sprint planning, retrospectives, and shared engineering best practices with the team.

KEY PROJECTS

ATS-Friendly Resume Builder Web App | *React.js, Node.js, Express, MongoDB, React-PDF*

- Full-stack resume builder with live preview, template selection, ATS-compliant PDF export, and MongoDB-backed autosave. Deployed on Render with CI/CD.

Automatic Portfolio Updater | *Python, Flask, GitHub Actions, Netlify*

- Automated portfolio deployment via GitHub Actions CI/CD — fetches repo data and triggers Netlify redeploys, achieving 100% update automation with structured error logging.

EDUCATION

B.Tech, Computer Science Engineering *CGPA: 8.24/10*

CV Raman Global University, Bhubaneswar | 2018 – 2022