Tejas Rajendra Raut

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EDUCATION

Northeastern University **Boston, MA | May 2023**
Master of Science in Engineering Management (Data Platforms)

Vellore Institute of Technology **Vellore, India | Apr 2020**
Bachelor of Technology in Mechanical Engineering (Automotive)

PROFESSIONAL EXPERIENCE

Software Engineer, CloudBig Technology **San Francisco, CA | Jun 2024 – Present**

- Architected event-driven AWS Lambda services processing SNS and SQS notification streams, implementing failure recovery, retry orchestration, and controlled message reprocessing to maintain system correctness under partial failures
- Ingested and materialized high-throughput OpenSearch indices processing over **90M+ records per month**, tuned bulk indexing paths and mitigated write amplification to preserve query latency under load
- Operationalized resilient **error-handling strategies** using SQS visibility timeouts, DLQs, and idempotent consumers, achieving **99.9% success rate** across asynchronous event processing workflows
- Codified CDK-based integration tests and CI/CD pipelines with staged deployments and automated rollback mechanisms to ensure safe releases for production infrastructure

Data Engineer, Mystry Inc. **Bellevue, WA | Oct 2023 - Jun 2024**

- Owned the migration of on-premises data systems to Azure Cloud, redesigning storage layouts and query patterns to improve analytical performance by 35% while **reducing infrastructure costs by 25%**
- Orchestrated Azure-based ETL pipelines processing 2TB+ daily, implementing CI/CD-driven data workflows that **increased deployment throughput by 40%** and **reduced downtime by 30%**
- Developed Python-based data marts and clustering models to support customer segmentation and downstream analytics, increasing marketing engagement by 15% through improved data accessibility

BI Engineer, Highbar Technologies **Mumbai, India | May 2020 - Jun 2021**

- Enabled an **11% revenue uplift** by designing KPI-driven Tableau dashboards and optimizing SAP HANA queries to deliver near-real-time insights across finance and operations teams
- Improved credit and operational **risk modeling accuracy by 20%** by building Python and Excel-based variance analysis and stress testing tools used in investment planning workflows
- Automated financial ETL pipelines using Azure Data Factory, automating reporting workflows to significantly **reduce data refresh latency** and manual intervention

TECHNICAL SKILLS

Programming Languages: Python, SQL, JavaScript, TypeScript, R, Transact-SQL, HTML/CSS
Data & ML Libraries: NumPy, Pandas, PySpark, TensorFlow, Scikit-learn, Matplotlib, Seaborn
Data Platforms & Distributed Systems: PostgreSQL, MySQL, MongoDB, Azure Cosmos, Kafka, Spark, Hive, Airflow
Cloud, Frameworks & Tools: AWS, Azure, Databricks, Snowflake, Git, Node.js, Angular, Tableau, Minitab, MATLAB

ACADEMIC PROJECTS

Battleship Multiplayer Web Game (React, TypeScript, Firebase, AWS S3, CloudFront) **Jan 2024 - Apr 2024**

- Created a real-time 1v1 multiplayer Battleship web game in React and TypeScript using Firebase for room coordination, turn synchronization, and **fault-tolerant session recovery**, including AI bot logic with hit-streak heuristics
- Engineered a CDN-backed asset pipeline using AWS S3 and CloudFront to serve 240-frame ship animations, optimizing GPU rendering paths and z-layering for **improved runtime responsiveness**

SyzManiac – Developer Environment Automation CLI Platform (Go, Shell, GitHub) **May 2023 - Dec 2024**

- Designed and built a Go-based automation framework to deterministically provision and restore an entire macOS development environment, including dependency installs, versioned dotfile migration, and **lifecycle orchestration** via a custom syz CLI
- Implemented idempotent workflows, fast system state scanning, structured logging, and healthchecks to enable one-command bootstrap and recovery, treating a **developer workstation as a reproducible, self-healing system**