

# SAMAR BHATTARAI

## Principal Data Engineering & Platform Architecture Leader

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[LinkedIn](#) | [Architecture Portfolio](#)

**EXECUTIVE SUMMARY** Hands-on data engineering leader with 15+ years of experience modernizing enterprise platforms across AWS and GCP. Expert in cloud migrations, real-time analytics, and high-integrity data solutions supporting 100K+ users. Recognized for translating executive strategy into scalable architectures, mentoring senior engineers, and driving measurable improvements in performance, reliability, and cost efficiency.

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## TECHNICAL TOOLKIT

- **Data Engineering:** AWS (Redshift, Aurora), GCP, Snowflake, Kafka, NiFi, Fluentd, ETL/ELT.
  - **Analytics & Programming:** SQL (PL/SQL), Python (pandas, PyTorch), R, OpenSearch, Shell, Awk, Sed.
  - **Visualization:** Tableau, ThoughtSpot, Power BI, Grafana.
  - **Leadership:** Team Mentorship, SOC2/GDPR Governance, Strategic KPI Development.
  - **Availability & Observability:** Oracle RAC, GoldenGate, Data Guard, Splunk, Dynatrace.
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## PROFESSIONAL EXPERIENCE

### Verizon | Principal Data Lead / Analytics Architect | 2019 – Present

- **Cloud Modernization (AWS):** Led the end-to-end migration of 50+ on-premise RDBMS to isolated AWS Aurora PostgreSQL clusters; architected a centralized Amazon Redshift warehouse that reduced licensing and storage costs by 40%.
- **Predictive Retention & Analytics:** Designed a decile-based churn scoring model using Python and PyTorch; built predictive billing-friction models that triggered proactive messaging, reducing churn by >10% and call-center volume by ~20%.
- **Real-Time Observability:** Developed DART (Digital Alert and Reporting Technology), a Python framework integrating telemetry from OpenSearch, Splunk, and Dynatrace for real-time anomaly detection and automated alerting.
- **Executive Insights:** Developed governed KPI frameworks and automated pipelines for 100+ executive stakeholders, ensuring launch readiness for major digital initiatives.
- **Technical Leadership:** Mentored a team of 12+ engineers through architecture reviews and hands-on problem solving while maintaining direct involvement in critical data pipelines.

## **Verizon | Lead Data Platform & Insights Engineer | 2015 – 2019**

- **Referral & Loyalty Platform:** Architected an event-driven referral system using Kafka, decoupling loyalty logic from checkout flows. Resulted in a 5% increase in acquisition and a 20% lift in digital engagement.
- **Fraud Mitigation:** Engineered a metadata-driven rules engine in PostgreSQL that blocked >\$50K in monthly fraudulent rewards via real-time validation logic.
- **Microservices Transition:** Modernized legacy monolithic systems into service-oriented architectures, separating UI, Service, and SRE layers to improve incident resolution time.
- **Self-Service BI:** Deployed Tableau and ThoughtSpot platforms across cross-functional teams, implementing strict data quality checks and SOC2/GDPR access controls.

## **Verizon | Senior Systems & Database Engineer | 2012 – 2015**

- **High Availability & DR:** Implemented disaster recovery and replication solutions using Oracle RAC, Data Guard, and GoldenGate to enable cross-region replication and near-zero downtime.
- **Session Management:** Architected Global Cookie Sharing (GCS) services using Oracle Coherence and advanced PL/SQL to centralize session storage for stateful applications.
- **Omni-Channel Analytics:** Built real-time and batch pipelines to aggregate customer engagement touchpoints across web, mobile, and self-service systems.

## **Techgene Solutions LLC | System Analyst | 2008 – 2012**

- **Database Engineering:** Owned the full RDBMS lifecycle (Oracle/SQL Server), including performance tuning, HA, and cross-region replication strategies.
  - **ETL Optimization:** Redesigned data validation and ETL routines, significantly increasing the reliability of downstream marketing and operational reporting.
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## **AWARDS & RECOGNITION**

- **Spotlight Award (2025):** Quality / Process Automation.
  - **CIO Certificate of Recognition (2017):** Outstanding contribution to Organization's priorities.
  - **Customer Excellence Spotlight (2016):** Awarded for "Life on FiOS" Launch and Database Tech Refresh.
  - **Achievement Award (2015):** Successful Omni-Channel Integration.
  - **Teamwork Spotlight Award (2014):** Vision Single Biller Project Launch.
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## **EDUCATION**

- **M.S. in Engineering,** Louisiana Tech University
- **B.E. in Electronics & Communication,** Kathmandu University