Shubh Bhikadiya

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SUMMARY

Analytical engineer with 2+ years architecting enterprise-scale data platforms processing 50M+ records. Specialized in statistical modeling, A/B testing, and production ML systems. Proven track record delivering $5M+ business impact through predictive analytics and data-driven decision making across higher education and technology sectors.

PROFESSIONAL EXPERIENCE

Arizona State University - Sandra Day O'Connor College of Law | *Business Intelligence Analyst* **August 2025 - Present**
- Architected enterprise analytics infrastructure processing 50M+ records from 5 heterogeneous systems (Banner ERP, Salesforce, Workday), serving 500+ faculty and administrative stakeholders with 99.9% uptime
- Engineered fault-tolerant ETL pipelines using Python, SQL, and AWS Redshift, eliminating 35% of manual data preparation while improving report delivery SLA from 72 to 24 hours
- Implemented statistical A/B testing framework for dashboard optimization, increasing user engagement by 23% through rigorous experimental design with 95% confidence intervals and proper power analysis
- Deployed predictive enrollment models (Random Forest, XGBoost) achieving 92% accuracy ($R^2 = 0.89$), directly informing $5M+ annual budget allocation and reducing student attrition by 8%.
- Led cross-functional analytics initiatives with C-suite stakeholders, delivering executive dashboards that reduced strategic decision-making cycle time by 40% and improved institutional research efficiency.
- Built automated monitoring systems with real-time alerts and data quality validation, achieving 99.95% data accuracy and proactive issue resolution across university operations.

Arizona State University – Youth Justice Lab | *Applied Data Scientist Intern* **June 2025 - August 2025**
- Enhanced survey methodology and data collection using Java and HTML in Qualtrics platform, improving research data quality and reducing collection time by 30%
- Built secure API-based data transmission pipeline ensuring PII protection while enabling seamless integration between Qualtrics and downstream analytics systems
- Automated cross-platform workflows (Qualtrics ↔ Monday.com), implementing SMS trigger systems and task alert mechanisms that reduced manual coordination effort by 60%
- Contributed to interactive policy dashboards for juvenile justice insights, supporting evidence-based policy development at national level through statistical analysis and visualization

Tracious Technologies Pvt. Ltd. | *Data Engineer* **July 2022 - August 2024**
- Designed and deployed scalable ETL architecture using Python, SQL, and Apache Airflow to integrate APIs, databases, and flat files, reducing reporting latency by 70% through process automation and stakeholder collaboration
- Led cloud migration initiative from legacy on-premises infrastructure to AWS (S3, Glue, Redshift), implementing IAM security policies and automated backup systems, achieving 35% cost reduction and 99.9% reliability
- Built comprehensive data quality framework using Great Expectations and CI/CD pipelines (Git, Jenkins), establishing data lineage tracking and schema management that reduced downstream quality issues by 80%
- Engineered real-time analytics platform using Kafka + Spark Streaming for batch and streaming data processing, while collaborating with analytics teams to optimize Snowflake data marts and improve dashboard performance by 45%.

BrainyBeam Technologies Pvt. Ltd. | *Software Development Intern* **May 2022 - July 2022**
- Developed full-stack e-commerce platform using Django framework with integrated authentication protocols and comprehensive security measures.
- Designed user experience features including product catalog management, shopping cart functionality, and payment processing integration.
- Implemented data security protocols and resolved technical challenges, achieving secure platform deployment that increased customer satisfaction metrics by 25%.

EDUCATION

**Arizona State University	Master of Science, Information Technology	GPA: 3.96/4.00**	**2024 - 2026**
**Pandit Deendayal Energy University	*Bachelor of Science	Information and Communication Technology*	GPA: 3.60/4.00**	**2020 - 2024**

SKILLS

Programming & Analytics: Python (pandas, numpy, scikit-learn, TensorFlow), SQL (PostgreSQL, Redshift, MySQL), R, Java, HTML/CSS/JavaScript.
Machine Learning & Statistics: Statistical modeling, hypothesis testing, A/B testing, causal inference, TensorFlow, PyTorch, XGBoost, computer vision (OpenCV, YOLO).
Data Engineering & Cloud: AWS (S3, Glue, Redshift, SageMaker, EC2), Apache Airflow, Kafka, Spark Streaming, Snowflake, ETL/ELT pipelines, data quality frameworks.
Visualization & BI: Tableau (advanced LOD expressions, parameters), Power BI, SSRS, DBeaver, executive dashboard design, data storytelling.
DevOps & Collaboration: Git, CI/CD (Jenkins), Docker, Great Expectations, Agile methodologies, cross-functional team leadership.

PROJECTS

Intelligent Vehicle Safety System | *Capstone* **December 2023 - May 2024**
- Developed autonomous vehicle safety enhancement using GPS geofencing and IMU-based turn detection for automatic side light activation.
- Integrated hardware-software ecosystem (Arduino UNO, GPS/IMU sensors, relay systems) with real-time processing capabilities in C/C++.
- Achieved 95% accuracy in turn detection while ensuring seamless integration with existing vehicle electronics and safety protocols.

Real-Time License Plate Recognition System | *Team Project* **August 2023 - November 2023**
- Led 4-person engineering team developing computer vision ANPR system achieving 95% recognition accuracy.
- Architected end-to-end ML pipeline using Python, OpenCV, TensorFlow, and YOLO object detection on specialized hardware.
- Optimized for real-time processing with low-latency performance in security-critical environments - Technologies: Python, OpenCV, TensorFlow, YOLO, Nexus A7 chip, I2C camera integration.