SOHAM VASUDEO | Data and AI Enthusiast

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SUMMARY

Graduated with a Master's in Global Business Analytics from Virginia Tech, with a multidisciplinary academic background in Data Science (Computer Science and Engineering, NMIMS University) and Cybersecurity (BIT, Virginia Tech).

Bringing over 1 years of professional experience across AI research, data engineering, and analytics roles in enterprise and startup environments.

Hands-on experience in data analytics, governance, and cloud-based systems through internships and startup consulting. Skilled in SQL, Python, Tableau, and Power BI with exposure to cloud data environments including Azure and AWS. Passionate about driving insights from structured and unstructured data, building data pipelines, and supporting business transformation through advanced analytics.

PROFESSIONAL EXPERIENCE

Atos Syntel – Mumbai, India Intern (05/2024 – 07/2024)

- Developed a cloud-native Healthcare Data Platform using **Azure services**, **Python**, **and Django**, aimed at streamlining patient intake and discharge workflows across hospital systems.
- Built and deployed automated pipelines to ingest and process blood reports into **Azure Data Lake**, improving data availability for physicians in real-time.
- Integrated **Azure OpenAI** to generate AI-powered diagnostic summaries, enhancing clinical efficiency and aiding faster decision-making during rounds.

FanDen (Startup) - Mumbai, India Technology Consultant (08/2022 - 08/2023)

- Led a cross-functional team of developers and designers to rebuild an event ticketing platform using **MERN stack**, resulting in a 40% improvement in load times and user experience.
- Designed and implemented a **custom CRM system** that improved backend workflows and centralized customer support, boosting internal efficiency.
- Integrated **QR-based ticketing** and order confirmation across venues, which reduced on-ground wait times by 25% during live events and meetups.

BrandBuddiez (Startup) - Mumbai, India Business Intern (04/2022 - 06/2022)

- Analyzed client operations and improved digital platforms for regional electronics brands, focusing on **SEO**, **UI/UX**, and funnel optimization.
- Created **UML process diagrams** to map and redesign the end-to-end supply chain workflow, from order intake to delivery logistics.
- Built interactive **Power BI dashboards** to visualize sales KPIs, regional performance, and product-level trends, helping management make data-informed decisions.

PROJECTS

Reconciliation AI Bot

- Designed and developed a prototype AI system to automate reconciliation of ERISA-compliant retirement account data such as 401(k) plans.
- Built a full-stack architecture using **React (UI)**, **Flask (API)**, **and PostgreSQL** (JSONB + YAML rule storage) to support rule-based and natural language reconciliation.
- Integrated **LangChain with Ollama-hosted Mistral LLM** to dynamically interpret YAML and NL rules and apply them across structured datasets.
- Utilized **ChromaDB** for vector-based retrieval over schema metadata and compliance documentation, enabling a Retrieval-Augmented Generation (RAG) workflow.
- Created a natural language chat interface that allows users to upload data, validate records, trigger reconciliation, and query data insights interactively.

Snowflake DevOps Automation

- Wrote custom **Python logic** to parse and execute only modified or version-incremented .sql files in a deterministic and auditable sequence.
- Designed a release workflow with branch/tag strategies for dry runs and controlled production deployments, integrating GitHub metadata (commits, SHAs, authors) for traceability.
- Enabled environment-specific rollouts with deployment logs and Slack notifications to ensure transparency and release governance.

Socioeconomic Restructuring Analysis - Capstone Project

- Analyzed U.S. Census Microdata (1994–1996) using regression and classification models to study income inequality, migration, and education trends.
- Achieved 100% ROC AUC in migration prediction, 99.8% ROC AUC in family instability modeling, and 97.85% ROC AUC in dropout risk prediction.
- Developed **Power BI** dashboards for dynamic storytelling and simulated policy interventions using data insights.

Automated Financial Data Processing and Dynamic Reporting

- Designed a conceptual framework to automate financial data workflows using RPA, ML, and Gen AI.
- Implemented RPA for data extraction, cleaning, ETL, and storage in a Data Warehouse.
- Integrated RLHF for continuous optimization and real-time financial decisions.

Covid-19 Analysis

- Analyzed COVID-19 patient and vaccine data; predicted recovery and mortality using SARIMAX.
- Built a **Power BI dashboard** to visualize vaccination and recovery predictions.

EDUCATION

- Virginia Tech - Alexandria, VA (08/2024 - 05/2025)

M.S in Business Administration (Global Business Analytics), CGPA: 3.88

- **Virginia Tech** – Blacksburg, VA (08/2023 – 05/2024)

B.S in Business Information Technology (Cybersecurity Management and Analytics), CGPA: 3.33

- NMIMS University – Mumbai, India (06/2020 – 08/2024)

B.Tech in Computer Science and Engineering (Data Science), CGPA: 3.12

SKILLS

Azure Data Lake | Snowflake | Cortex | SQL | Power BI | Tableau | Data Modelling

Python | Azure OpenAI Services | AWS Bedrock | Machine Learning | Gen AI | Agentic AI

MERN Stack | Django | CRM Systems | Git

CERTIFICATIONS

Building Generative AI Applications Using Amazon Bedrock - AWS Skill Builder | 07/2025

Gen AI Fundamentals - Databricks | 11/2024

Google Analytics Certification - Google | 04/2024

Machine Learning Specialization – Coursera | 01/2023

Base SAS & Predictive Modeling – Tier 2 – SAS | 02/2022

Base SAS & Visual Analytics – Tier 1 – SAS | 12/2021

Data Science - SkillVertex | 12/2021