



SHAH ZAIB SOHAIL ALI

TECHNICAL PRODUCT LEAD | DATA PLATFORMS, INTEROPERABILITY & AI ENABLEMENT

SPECIALIZING IN HEALTHCARE WORKFLOWS, AZURE OPTIMIZATION & ENTERPRISE DATA ARCHITECTURE

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PROFESSIONAL OVERVIEW

Technical Product Lead specializing in healthcare data platforms, clinical interoperability, and enterprise cloud solutions. I lead the design and delivery of scalable data products that connect complex healthcare workflows, analytics needs, and operational outcomes.

My work combines product strategy, SQL Server architecture, cloud infrastructure, and asynchronous data ingestion to support population health, value-based care, and healthcare operations. I focus on building reliable, secure, and practical systems that help organizations turn fragmented clinical and business data into actionable insight.

CURRENT RESPONSIBILITIES

Technical Product Manager

DataQ Health | 2020 - Present

- Own product strategy and roadmap execution for data platforms and analytics solutions supporting population health and value-based care programs.
- Manage stakeholder engagement and client collaboration to align product capabilities with business priorities, operational needs, and clinical outcomes.
- Define product requirements, epics, and user stories by translating complex business needs into clear, technically feasible delivery plans.
- Establish and monitor KPIs across risk adjustment, annual wellness visits, disease management, and quality programs to support data-driven decision-making.
- Lead Agile/Scrum delivery across engineering, data, and business teams to deliver scalable, high-impact data products.
- Oversee the end-to-end product lifecycle, from discovery and prioritization through delivery, adoption, and continuous improvement.
- Drive workflow optimization and automated process design to improve operational efficiency, reporting accuracy, and platform usability.
- Align healthcare product capabilities with value-based care objectives, population health initiatives, and enterprise data strategy.

Data Platform & Architecture Contributions:

- Spearhead the design and evolution of enterprise-scale data platforms, including data warehouses, data lakes, and lakehouse architectures.
- Define and implement data architecture strategies ensuring scalability, performance, and interoperability.
- Design conceptual, logical, and physical data models for claims, EMR, and payer datasets.
- Leverage Azure cloud services for distributed data storage and processing.
- Establish data governance frameworks, including data quality validation, standardization, and compliance practices.
- Guide modernization of legacy data workflows into more modular, scalable, and observable platform capabilities.
- Standardize data ingestion and transformation patterns to improve consistency, maintainability, and reuse across healthcare data workflows.

CORE COMPETENCIES

Product Leadership

- Product Strategy & Roadmap Ownership
- Stakeholder Management & Client Engagement
- Requirements Definition (Epics, User Stories)
- KPI Definition & Data-Driven Decision Making
- Agile / Scrum Delivery & Lifecycle Management
- Cross-Functional Team Leadership (Engineering, Data, Business)
- End-to-End Product Lifecycle Management
- Workflow Optimization & Automated Process Design
- Value-Based Care & Healthcare Product Alignment

Data Platforms & Architecture

- Data Platform Design (Data Warehouse, Data Lake, Lakehouse)
- Data Modeling (Conceptual, Logical, Physical)
- Modular & Service-Oriented System Architecture
- ETL/ELT Pipelines & Data Integration
- Real-Time & Batch Processing Architectures
- SQL & NoSQL Databases
- Multi-Source Ingestion (Claims, Eligibility, EMR, Payer Files)
- Data Modeling & Integration Frameworks (HIEs/APIs)
- Real-Time & Batch Processing Architectures
- Interoperability (HL7, FHIR, CCDA, QRDA)
- Security Protocols & Regulatory Compliance (HIPAA/CMS)
- Data Governance & Solution Stability Enhancements
- Data Interoperability & Healthcare Standards Integration (HL7, FHIR, CCDA, QRDA)

AI-AUGMENTED ENGINEERING PROJECTS

- **MediQuery AI**

AI-powered healthcare analytics platform enabling natural language querying of hospital alert data with real-time ClickHouse insights and MinIO-backed data lake architecture.

- **HL7 ADT Ingestion Platform**

Production-grade healthcare data pipeline with real-time observability and file lifecycle management.

- **TSV Ingestion & Reporting Platform**

High-performance EHR data ingestion utility with multi-threaded Python engine and HIPAA compliance.

- **CCDA Validation & Ingestion Tool**

Enterprise clinical informatics engine for high-concurrency XML auditing and relational SQL Server ingestion with advanced encounter mapping.

- **GCP HL7 Intake Lab**

A learning-focused healthcare data engineering web app designed to teach Google Cloud Platform (GCP) concepts using HL7 v2 messages.

PAST WORK EXPERIENCE

Application Data Architect

DataQ Health (Wiseman Innovations) | 2019 - 2020

- Architected a comprehensive Population Health Management platform, designing end-to-end scalable, secure, and high-performing applications.
- Collaborated with cross-functional leadership to support critical initiatives including Risk Adjustment, Quality Reporting, and Care Coordination.
- Established enterprise-grade architectural patterns, security protocols, and coding standards for long-term maintainability.
- Defined data integration frameworks and metadata standards to ensure seamless interoperability across the platform.

Lead Development

DataQ Health (Wiseman Innovations) | 2017 - 2019

- Led the end-to-end development of enterprise healthcare applications using the Microsoft technology stack.
- Oversaw high-performing teams through the complete SDLC, ensuring scalable, secure, and user-centric solutions.
- Balanced hands-on coding with leadership responsibilities including mentoring, code reviews, and cross-functional collaboration.
- Translated complex business and clinical requirements into robust technical solutions with an emphasis on modularity.

Senior Software Engineer

DataQ Health (Longhorn Innovations) | 2015 - 2017

Senior Software Engineer

BroadPeakIT | 2014 - 2015

Software Engineer

Netsolace Inc. | 2011 - 2014

TECHNICAL SKILLS

Healthcare Data Standards

- HL7 (ADT, ORU, ORM - Extensive)
- FHIR (R4/R5) & SMART on FHIR
- Clinical Terminology (ICD-10, LOINC, SNOMED)
- CCDA, QRDA, Claims & PHI Scrubbing
- Enrollment & Eligibility Data

Backend Utility & Stack Experiments

- Asynchronous Python (asyncio/httpx)
- NoSQL (Redis/Vercel KV/MongoDB)
- Message Brokers (Kafka/RabbitMQ)
- Orchestration (Airflow/NestJS Workers)
- Cross-Platform Desktop (Flet/Electron)

Data Engineering

- ETL/ELT & Data Warehousing
- Data Modeling & Master Data Management
- Idempotent Pipeline Design
- Schema Evolution & Migration
- Storage Tiering Strategies
- Data Lineage Tracking
- Data Observability & Monitoring

Governance & Compliance

- HIPAA, HITRUST & CMS Compliance
- Air-Gapped Infrastructure Design
- Technical Safeguards (XXE, Audit Logs)
- Metadata & Data Lineage

Modern Web & Serverless Experiments

- Modern Web (Next.js, React, Tailwind CSS)
- Serverless (Vercel/Azure Functions)
- Node.js & NestJS (Orchestration)
- Data Visualization (Recharts/D3)

Data & Databases

- SQL Server (Enterprise Architecture)
- Query Optimization & Schema Design
- Relational Data Modeling

Cloud

- Microsoft Azure (Primary Infrastructure)
- Azure Data Factory & Synapse Analytics
- Hybrid Cloud Networking

Analytics

- Power BI & Embedded Analytics
- Longitudinal Patient Summaries
- Advanced SQL Analytics

AI & Data Research Experiments

- Vector Databases (Pinecone/Milvus)
- Columnar Storage (ClickHouse/BigQuery)
- Distributed Storage (MinIO/S3)
- Distributed Query Engines (Trino/Presto)
- Predictive Modeling & AI Agents
- LLM Orchestration (LangChain/Groq)

Programming

- C#, .NET & Entity Framework
- ASP.NET MVC & Web Services
- LINQ & Core Development