

SYED USAMA HAIDER KAZMI

Engineering Director | Product, Data & AI Engineering

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Open to On-site, Remote & Relocation Opportunities

PROFESSIONAL SUMMARY

10+ years turning fragmented, high-volume data into governed platforms that survive audits and scale with the business. Architected a **BigQuery-backed data warehouse** with one generic **OAuth2** pipeline for IOT & wearables (Health Metrics) and led the **enterprise-level clinical data platform** that scaled to 14 production studies across 1.5M+ patient records with a clean audit record across **HIPAA, GDPR, 21 CFR Part 11, SOC 2, and GxP**. Built and directed globally distributed engineering and data science teams. Has repeatedly taken platforms from greenfield build through revenue-generating scale, then used client and support data to forecast what the roadmap needed next.

FEATURED PROJECT [PROCI AI](#) | ENTERPRISE CONTEXT-AWARE AI PLATFORM

Conceived and architected [PROCI AI](#), an enterprise multi-tenant platform that eliminated departmental knowledge bottlenecks and human-dependency friction. Transformed fragmented corporate assets into an instant, self-serve intelligence engine that slashed operational lookup delays and accelerated decision velocity across cross-functional teams. Designed a vendor-agnostic AI infrastructure with strict zero-trust data governance, guaranteeing complete tenant isolation and audit compliance. Led greenfield execution through enterprise rollout, positioning AI as an operational multiplier for sustainable growth. [Click to view case-study for more details.](#)

KEY ACHIEVEMENTS

ACHIEVEMENT	IMPACT
16 direct reports across 5 countries	Led developers, DevOps, manual & automation QA, data scientists, and AI engineers across Pakistan, Egypt, Bangladesh, Saudi Arabia, and Canada
1,300 concurrent active users per study	Supported large-scale clinical operations while maintaining PHI-level access controls, auditability, and production reliability
1.5M+ eCRF/ePRO system records	Patient trial data (consent, forms, outcomes) governed across MySQL and PostgreSQL
3M+ IoT/wearable records per study	Health-metric data from 7 device vendors streamed into BigQuery, data-profiled against the relational patient records
11 concurrent enterprise clients	7 managed hands-on across 14 production studies, requirements to production
7 vendor integrations → 1 pipeline	Generic OAuth2 + BigQuery engine; new vendors onboard via config, not code
2 quality incidents	Resolved via formal CAPA, including direct live-database remediation
Zero critical audit findings	Across HIPAA, GDPR, 21 CFR Part 11, SOC 2, and GCP third-party audits

CORE COMPETENCIES

Data Architecture & Engineering: BigQuery Data Warehousing, Lakehouse Design (Raw + Curated Layering), Event-Driven Data Sanitization & Classification Pipelines, Data Profiling & Cross-System Reconciliation (Relational ↔ Warehouse), Data Modeling & Schema Design, Multi-Tenant SaaS Architecture, API-First & Microservices Design, OAuth2 Authorization Systems.

Cloud, Database & Observability: Google Cloud Platform (Compute Engine, Cloud Run, Cloud SQL, Cloud Storage, Pub/Sub, Secret Manager, Cloud Build), PostgreSQL, MySQL, MongoDB, Redis, Grafana, Looker Studio (multi-source dashboarding)

AI Platform Engineering: Retrieval-Augmented Generation (RAG), Vector Embeddings & Semantic Search (pgvector), Supabase, Multi-Model / BYOK Integration (Gemini, GPT, Claude, OpenRouter), Custom Agent & Skill Framework, Multi-Format Ingestion (PDF, DOCX, XLSX, Markdown, URL), Prompt Engineering & Inference Configuration

Governance, Quality & Compliance: Data Classification & Sanitization, PHI/PII Access Control (RBAC), Immutable Audit Trail Design, Release Validation Suites & UAT Governance, Root-Cause & CAPA Resolution, Third-Party Audit Leadership, Regulatory Compliance (HIPAA, GDPR, 21 CFR Part 11, SOC 2, ICH-GCP, GxP)

Leadership & Delivery: Agile/Scrum, Distributed Team Leadership (Engineers, Data Scientists, QA), Hiring & Mentorship, Technical Road mapping, CI/CD Oversight & Deployment Modernization, Stakeholder & Client Management, Jira, Confluence, Miro, Lucid Chart, Trello, ClickUp, Slack.

PROFESSIONAL EXPERIENCE

Director of Engineering (Dec 2022 – May 2026)
Previously: System Architect (Feb 2021 – Dec 2022)

[Delve Health LLC](#)
Minneapolis, MN, USA (Remote)

- Inherited a tightly coupled clinical-trial monolith that couldn't run studies in parallel; re-architected it into a **modular, event-driven SaaS platform**, unlocking **11 concurrent enterprise engagements** (7 managed hands-on, from kickoff through go-live and into post-go-live support) across **14 production studies**.
- Replaced bespoke, one-off integrations for seven wearable/telehealth vendors (Apple Watch, Fitbit, Oura, Dexcom, Withings, and others) with a single generic **OAuth2 authorization engine** and **BigQuery-backed pipeline**, cutting new-vendor onboarding from weeks of custom code to a configuration task.
- Personally, wrote **event-driven, per-vendor data sanitization and classification algorithms** that clean and normalize incoming device data while retaining the original **raw data per vendor** in a **lakehouse-style** layer for lineage and reprocessing.
- Owned data governance for **1.5M+ eCRF/ePRO records** (MySQL/PostgreSQL) plus **3M+ IoT/wearable records per study** (BigQuery), with **data profiling** linking the relational and warehouse layers, and up to **1,300 concurrent active users** per study: built PHI-level **RBAC** and immutable audit trails, sustaining zero critical findings across **HIPAA, GDPR, 21 CFR Part 11, SOC 2, and GCP** audits.
- Owned release governance: **validation suites and per-release checklists** through to completion, per-client **UAT evaluation reports** gating every go-to-production sign-off, and post-go-live **change management** via documented Change Request (CR) processes.
- Led root-cause investigation and **CAPA** resolution for 2 production data-quality incidents, including direct live-database fixes on active clinical systems, protecting audit standing across all 11 client engagements.
- Ran a **priority-tiered SLA support model** (critical/major/medium/low, sized to task complexity) across all 11 client engagements keeping the support queue clean and relationships intact on longer-running fixes via direct 1:1 client calls on status and remaining work, rather than silent tickets.
- Directed **16 direct reports** (developers, DevOps, manual & automation QA, data scientists, and AI engineers) across Pakistan, Egypt, Bangladesh, Saudi Arabia, and Canada; owned hiring, mentorship, and code-review standards while guiding the team's shift toward managed, **autonomous CI/CD** deployment.
- Reported directly to the **CTO and CEO**; partnered as a peer with the Directors of Customer Success and Compliance/Regulatory & External Audits, plus the **Chief Commercial Officer and VP of Business Development**, to align technical delivery with commercial and compliance strategy.

Contextual Aware AI Platform

- Designed and implemented AI-powered Retrieval-Augmented Generation (RAG) systems enabling cross-functional intelligence and knowledge retrieval across engineering and operations teams.

As System Architect

- Owned the product development lifecycle end-to-end, requirements through deployment, as the primary technical bridge between clients, stakeholders, and engineering, laying the architectural foundation that later scaled to 11 clients and 14 studies. Promoted to Director of Engineering based on this work.

Role: Project Manager (June 2018 – Feb 2021)

[CFE Group of Colleges \(CA/ ACCA\)](#)
Lahore, Punjab, Pakistan

- Led the greenfield modernization of three legacy institutional systems, an **HRMS** (300+ employees), digitized financial/operations workflows, and an e-learning platform, for a college group serving roughly **5,000 active students** a year, directing an in-house team of 5.
- Shipped a Zoom/Meet-integrated e-learning platform **3-4 months ahead of COVID-19**, giving the institution a first-mover advantage when remote learning became mandatory.

Earlier:

Team Lead, [Solstice Solutions](#)
(2018–2020)

Full-Stack Developer, [Geekinn Pvt Ltd](#)
(2017–2018)

Android Developer, [IT-Genes](#)
(2015–2017)

EDUCATION, CERTIFICATIONS, OPEN SOURCE & CONTRIBUTIONS

Degree B.S. Computer Science

[Virtual University of Pakistan](#) (2014–2018)

Certification [Project Management Certification](#)

[University of California, Irvine](#) (Coursera, HEC Scholarship)

Upwork Top Rated Freelancer

[Upwork](#) (2020–2021)

[Guest Speaker at CS Talk](#)

[COMSATS University](#) (ACM Chapter)

Creator, DataFinder (MIT, [Documentation](#)) | A config-driven Laravel's ETL based data engine allowing dynamic rendering with a chunked **SheetJS** export pipeline handling **100k+ rows** per export on minimal server memory.