

## HUDSON TAYLOR

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### PROFESSIONAL SUMMARY

Data Solutions Architect with 15+ years designing and implementing laboratory information systems and data integration solutions. Expert in bridging business and technical teams to deliver scalable LIMS implementations, automated workflows, and compliant data architectures. Proven ability to translate complex laboratory requirements into practical technical solutions while ensuring regulatory compliance. Currently architecting enterprise-scale systems for public health laboratories using modern cloud technologies and AI-assisted development tools.

### CORE COMPETENCIES

**Laboratory Systems:** LIMS Design & Implementation | Biospecimen Tracking | Instrument Integration | Laboratory Workflows

**Data Architecture:** SQL Database Design | ETL/Data Pipelines | System Integration | API Development | Cloud Migration

**Regulatory Compliance:** 21 CFR Part 11 | ISO 17025 | NELAC | EPA Standards | Good Documentation Practices

**Technologies:** SQL Server | Python | C# | Azure | REST APIs | JSON | Power BI | Crystal Reports

**Business Skills:** Stakeholder Management | Requirements Gathering | Process Improvement | Technical Documentation

### PROFESSIONAL EXPERIENCE

#### STATE OF ALASKA, DEPARTMENT OF HEALTH | Anchorage, AK (Remote)

##### Senior Analyst/Programmer - Laboratory Systems | May 2024 - Present

Architecting data solutions and system integrations for Alaska's public health laboratory network serving 780,000+ samples annually.

- **Gathering requirements from diverse stakeholders** including laboratory scientists, quality managers, and IT teams to design integrated solutions
- **Developing custom data parsers and integration tools** for 50+ laboratory instruments, automating data capture and validation
- **Architecting cloud migration strategy** from on-premise SQL Server to Azure, ensuring zero downtime for critical operations
- **Creating comprehensive technical documentation** including data flow diagrams, integration specifications, and user guides
- **Building automated workflows** that reduced manual data entry by 85% and improved data accuracy
- **Utilizing AI tools** (ChatGPT, Claude) to accelerate development and documentation processes
- **Managing relationships** between laboratory operations, IT, and external vendors to deliver cohesive solutions

#### CLINISYS (Formerly Horizon/Sunquest) | Tucson, AZ

##### Professional Services Consultant | November 2021 - October 2023

Implemented LIMS solutions for clinical and research laboratories, including national laboratory clients.

- **Led requirements gathering workshops** with laboratory stakeholders to understand workflows and pain points
- **Designed and configured LIMS solutions** for diverse laboratory environments including clinical, environmental, and research
- **Developed custom SQL reports and data extracts** for operational metrics and compliance reporting
- **Created integration solutions** connecting LIMS with instruments and enterprise systems
- **Provided training and documentation** ensuring successful adoption by laboratory staff
- **Worked with regulatory teams** to ensure system compliance with applicable standards

#### TOMBSTONE DASH LLC | San Diego, CA

##### Laboratory Technology Consultant | September 2016 - Present

Providing data architecture and integration solutions for laboratory modernization projects.

- **Designing data integration strategies** for laboratories transitioning from paper to digital systems
- **Developing custom tools using Python and SQL** for data migration and validation
- **Creating proof-of-concept solutions** demonstrating ROI of system improvements
- **Advising on LIMS selection** based on specific laboratory needs and compliance requirements

#### CALENERGY OPERATING CORPORATION | Calipatria, CA

##### Laboratory Manager / LIMS Administrator | January 2012 - August 2018

Managed laboratory operations while implementing and maintaining LIMS across multiple facilities.

- **Implemented Omega LIMS** (MS Access/SQL Server) for main laboratory and 9 satellite locations
- **Configured system to meet regulatory standards** including ISO 17025, NELAC, EPA, and DoD-ELAP
- **Developed data integration solutions** connecting field instruments to central database
- **Created automated reporting systems** for operational and compliance metrics
- **Managed vendor relationships** for system support and enhancements
- **Trained staff across all locations** on digital workflows and data entry standards

#### KEY PROJECT HIGHLIGHTS

##### Enterprise LIMS Implementation - Alaska Public Health

- Architecting solution for 5.3M+ test results across multiple laboratory departments
- Designing data warehouse structure for clinical and operational reporting
- Implementing real-time instrument integration for 50+ devices
- Creating automated validation rules ensuring data integrity

##### Laboratory Modernization - Multiple Clients

- Successfully transitioned laboratories from paper-based to digital operations
- Designed biospecimen tracking systems with full chain of custody
- Implemented automated data capture reducing errors and improving efficiency
- Developed custom integration tools for legacy system migration

#### TECHNICAL SKILLS

**Programming & Scripting:** SQL (Expert), Python, C#, VBA, PowerShell

**Databases:** SQL Server, PostgreSQL, MS Access, Azure SQL

**Integration Tools:** REST APIs, HL7, Custom Parsers, ETL Scripts

**Reporting & Analytics:** Power BI, Crystal Reports, SSRS

**Platforms:** Windows Server, Azure Cloud, Microsoft 365

**Development Tools:** Git, Azure DevOps, Visual Studio

**AI Tools:** ChatGPT, Claude (for development assistance and documentation)

## REGULATORY & COMPLIANCE EXPERIENCE

- Implemented systems compliant with 21 CFR Part 11 electronic records requirements
- Experienced with Good Documentation Practices in regulated environments
- Designed audit trails and data integrity controls for laboratory systems
- Created validation documentation for software implementations
- Familiar with ISO 17025, NELAC, EPA, and other laboratory standards

## EDUCATION

**UNIVERSITY OF CALIFORNIA, SAN DIEGO** | La Jolla, CA

- MS, Biochemistry (2008)
- BS, Biology (2005)

## PROFESSIONAL APPROACH

“I believe successful data solutions come from truly understanding the end users’ needs and the business context. My role is to translate between what laboratories need and what technology can deliver, always keeping compliance and scalability in mind.”