

LUKE PERRIN

LIFE SCIENCES STRATEGY & TECHNOLOGY | R&D DATA, AI & DIGITAL TRANSFORMATION

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PROFESSIONAL SUMMARY

Client-facing life sciences strategy and technology leader with 6+ years leading complex R&D data, AI, digital platform, and transformation engagements for global pharmaceutical and biotech organizations. Trusted advisor to executive, scientific, data, and IT stakeholders; translates ambiguous business problems into structured assessments, value-creation use cases, roadmaps, and actionable recommendations. Owns a \$5.5M portfolio across 18+ partnerships, including five top-20 pharma companies, with 22% average year-over-year growth. Combines drug discovery domain expertise with enterprise data strategy, cloud architecture, AI/ML, product delivery, governance, change management, and executive communication.

CORE CAPABILITIES

STRATEGY & PROBLEM SOLVING

Project scoping and approach; structured assessments; data value creation and use-case prioritization; issue analysis; hypothesis development; business cases; roadmaps and executive recommendations

DATA, CLOUD & AI

Enterprise data strategy; data management, governance and quality; AI-ready data foundations; modern data architecture; ETL and pipelines; APIs; AWS/GCP; HPC; predictive, generative and agentic AI

TRANSFORMATION & DELIVERY

Digital transformation roadmaps; current- and future-state assessments; governance; workflow redesign; change and adoption; Agile product and platform delivery

CLIENT & PRACTICE LEADERSHIP

Executive workshops; multi-workstream delivery; scope, timeline, risk and dependency management; account expansion; proposals, RFPs and SOWs; cross-functional leadership

PROFESSIONAL EXPERIENCE

Senior Strategic Deployment Manager - Schrödinger

San Diego, CA

LiveDesign® - Enterprise Informatics Cloud SaaS Platform and Digital Lab for Molecular Design

- Advise R&D and IT leaders on enterprise data, AI/ML, scientific platform, and digital transformation priorities; translate ambiguous executive objectives into structured problem statements, value-creation use cases, requirements, workplans, implementation roadmaps, and measures of success.
- **Lead day-to-day delivery** and client relationships for a \$5.5M portfolio spanning 18+ pharmaceutical and biotech partnerships, including five top-20 pharma companies; manage concurrent workstreams, scope, timelines, risks, dependencies, and stakeholder alignment, contributing to 22% average YoY growth.
- **Assess clients' current data, cloud, AI, and research technology ecosystems** to identify workflow gaps, integration risks, governance constraints, and modernization opportunities; develop future-state architectures and phased transformation roadmaps.
- **Design enterprise platform solutions** integrating ELN/LIMS, compound registration, assay data, internal databases, HPC environments, and third-party tools through APIs, ETL, cloud-native architectures, and configurable workflows.
- **Conduct issue analysis and synthesize** scientific, technical, usage, and stakeholder findings into executive-ready recommendations, process models, architecture diagrams, product concepts, and business cases connecting technology investments to measurable R&D value.
- **Lead cross-functional working sessions and governance forums** across client executives, R&D, IT, data engineering, security, product, and engineering teams; resolve priority conflicts and accelerate decisions, reducing selected project turnaround times by up to 50%.
- **Shape product- and platform-led delivery** by authoring user stories, assessing business impact versus technical lift, identifying risks and mitigation strategies, and presenting UX mockups and implementation options to product and engineering leadership.
- **Drive adoption and sustained operational change** by redesigning scientific workflows, communicating immediate and long-term value, and incorporating user feedback; increased platform usage or supported data volumes by up to 50% for selected clients.
- **Develop proposals, RFP/RFI responses, SOWs, estimates, and co-development plans;** negotiate scope and pricing with client sponsors and identify whitespace opportunities for account and offering expansion.

Cloud Lab Digital Solutions Engineer - Strateos

San Diego, CA

- **Led consulting engagements and discovery workshops** for global pharmaceutical organizations, including three of the top 10 by revenue; mapped current-state workflows and IT architecture, clarified scientific, business, and technical needs, and translated findings into solution strategies.
- **Authored a 100+ page enterprise transformation proposal** defining data strategy, architecture, system integrations, analytics, AI enablement, implementation workstreams, and a phased roadmap.
- **Designed client-specific cloud and software solution stacks** for autonomous laboratory operations and research applications; communicated tradeoffs across scalability, maintainability, performance, cost, and adoption.
- **Partnered with product and engineering teams** to convert client needs into user stories and sprint priorities, supporting custom solution delivery from discovery through implementation.

Data & Automation Engineer, Chemistry - Strateos

San Diego, CA

Scientific Data Integration, Analytics and Automation for High-Throughput R&D

- **Architected integrated data flows** across ELN, compound registration, analytics, inventory, and laboratory systems using APIs, databases, and synchronous ETL, reducing manual handoffs and improving traceability.
- **Built real-time BI dashboards and KPI reporting** that gave leadership visibility into throughput, bottlenecks, and operational performance to support data-driven decisions.
- **Developed AI/ML and decision-support tools** for retrosynthetic analysis, chemical inventory optimization, and SAR/predictive modeling using Python, RDKit, APIs, and supervised learning.

Earlier Scientific R&D Experience - Strateos / Eli Lilly Biotechnological Center; Integrity Bio

California

Associate Scientist II, Synthetic Chemistry (Small Molecule) | Research Associate II, Biochemistry (Large Molecule)

- **Built hands-on domain expertise** across high-throughput synthesis, purification, analytical assays, protein stability, laboratory operations, and scientific data generation - grounding strategy and technology recommendations in the realities of drug discovery workflows.

SELECTED APPLIED AI, ANALYTICS & DATA PROJECTS

- **PurifAI** - Designed, trained, evaluated, and deployed a supervised learning application that forecasted purification and LC-MS methods for newly synthesized compounds; used Python, RDKit, PySpark, AWS RDS, XGBoost, Balanced Random Forest, AdaBoost, Logistic Regression, React, and JavaScript.
- **Retrosynthetic AI** - Built a hybrid MCS and Tanimoto similarity pipeline to identify related reaction pathways, decompose targets, and programmatically write recommended starting materials and reaction conditions into an ELN through APIs.
- **Automated Sample Registration & Reporting** - Designed an end-to-end data pipeline connecting compound registration, synthesis and assay tracking, ELN records, and recurring campaign dashboards across multiple endpoint systems.
- **Technical Enablement Assets** - Developed reusable Jupyter notebooks and workflow tutorials for cheminformatics and enterprise platform APIs, improving accessibility of complex technical capabilities for scientific users and internal delivery teams.

EDUCATION

- Data Strategy - UC Berkeley Executive Education, Certificate
- Data Analytics & Machine Learning - UC Berkeley Extension, Certificate
- Bachelor of Science, Chemistry - Westmont College, Santa Barbara, CA

TECHNICAL & DOMAIN SKILLS

Analytics & AI: Python, SQL, Excel, Tableau, Power BI, Spotfire, Pandas, NumPy, scikit-learn, PySpark, predictive modeling, GenAI and agentic workflow concepts

Cloud & Architecture: AWS, GCP, cloud-native architecture, HPC, APIs, ETL, data pipelines, SQL/PostgreSQL, MongoDB, BigQuery, Docker, Kubernetes, Terraform, DevOps and MLOps concepts

Enterprise R&D Systems: LiveDesign, Dotmatics, Signals ELN, CDD Vault, ELN/LIMS, compound registration, assay systems, laboratory automation, scientific data platforms

Delivery & Product: Jira, Confluence, Agile/Scrum, Figma, Lucidchart, Miro, user stories, roadmaps, process models, architecture diagrams, RFP/RFI/SOW development

Scientific Domain: Drug discovery, small molecules, biologics, medicinal chemistry, cheminformatics, SAR analysis, high-throughput experimentation, predictive molecular design

Languages: English (native), French (intermediate), German (intermediate)