



AI & Machine Learning Solutions

Service Overview

Description

DataDrill helps organizations turn complex, regulated data into intelligent, action-ready systems. We build domain-specific AI that doesn't just analyze data but delivers real outcomes. Our assistants can answer questions, generate insights, and reduce time spent on repetitive tasks. Everything is built with compliance, traceability, and production readiness in mind.

Business Challenge

Organizations in pharma, healthcare, and other regulated fields deal with massive volumes of complex data such as clinical studies, regulatory submissions, HTAs, and internal systems. Many still rely on manual, disconnected processes to make sense of this information. Off-the-shelf AI tools are not designed for compliance or domain-specific needs. We solve that by designing AI systems that understand your data and work within your environment.

Value Proposition

- Industry-specific experience helps us quickly align with complex data, compliance, and stakeholder needs
- Proven success deploying AI assistants in structured, regulated environments without disrupting existing systems
- Full transparency and auditability built into every layer of the solution, from queries to deployment
- End-to-end delivery that moves fast from idea to production, backed by real user validation at each step

Benefits

- Faster decision-making without relying on technical teams
- Reduced manual review and reporting workload
- Trusted outputs with full audit visibility
- Long-term scalability supported by clean, sustainable data pipelines

Methodology & Delivery Approach

We design and deliver AI systems tailored to real-world business workflows, starting with raw data audits and ending with fully integrated, secure deployments. Each project is built around transparency, compliance, and technical precision, ensuring long-term value from day one.

Delivery Phases

- **Discovery & Use Case Alignment** – Audit data sources, assess infrastructure readiness, and define high-impact use cases with measurable outcomes.
- **AI Logic Design** – Build custom model logic aligned with your domain, data constraints, and operational goals.
- **Validation & Compliance Review** – Test for model accuracy, auditability, and stability. Ensure alignment with traceability, access controls, and regulatory expectations.
- **Deployment & Workflow Integration** – Deploy into secure production environments with full CI/CD support, role-based access control, and scalable infrastructure.
- **Automation & UX Layering** – Connect AI outputs to internal tools, applications, or workflows to drive real decision-making and reduce manual overhead.
- **Monitoring & Optimization** – Track performance, usage patterns, and model drift to support long-term adaptation and improvement.

Communication & Collaboration

- **Kickoff & Goal Alignment** – Technical and business teams align on project scope, infrastructure needs, and success metrics in an onboarding workshop.
- **Weekly Working Sessions** – Transparent sprint cycles with weekly demos, log access, and live validation data shared throughout development.
- **Preferred Collaboration Tools** – Teams typically use Slack or Microsoft Teams for async comms, and GitLab, Notion, or Confluence for structured documentation and updates.

Project Execution

- **Milestone Roadmap** – Data audit → Prototype model → Evaluation & feedback → Production integration → Post-launch refinement
- **Live Monitoring** – Clients have real-time visibility into logs, evaluation metrics, and usage analytics from the moment the system goes live.
- **SLAs & Ongoing Support** – Structured post-deployment agreements cover model updates, retraining cycles, bug fixes, and continuous optimization.

Team Competences & Qualifications

Expertise:

- Experienced AI engineers and data scientists with backgrounds in bioinformatics, statistics, and compliance
- Multi-project experience in life sciences (NLP for EHRs, HTA text mining, clinical predictions)
- Specialists in Generative AI and regulated data environments
- Hands-on experience in data engineering, compliance, and full-stack delivery
- Skilled at converting complex datasets into usable tools for real teams

Project Experience:

- AI chatbots built for regulatory, pricing, and clinical operations
- SQL-generating assistants deployed for non-technical users
- Fully compliant systems with audit logging, access control, and performance monitoring

Technology Stack & Tools

LangGraph and LangChain – for multi-step AI workflows
LangSmith – for monitoring and evaluation
OpenAI API via Azure – for language understanding
Python, SQLAlchemy, and CrewAI – for backend engineering
Azure AI Search – for fast access to structured datasets

Custom SQL Views – for safe and explainable data access
Docker, GitLab, and Azure Cloud – for deployment and automation

Case Study Highlight

Client: Confidential – Pharma Market Access Division

Challenge:

The client was overwhelmed with pricing, HTA, and regulatory data. Their legacy tools were slow, limited, and required technical staff to operate.

Solution Delivered:

We deployed an internal AI assistant that answered plain-language questions using over 250 structured data fields. The system included audit trails, access controls, and full explainability.

Business Impact:

- Reduced scenario calculation time from hours to **under 5 minutes**
- Matched legacy Excel model accuracy in validation
- Enabled rapid pricing and reimbursement planning across markets

ROI

One of our clients in the life sciences sector implemented a domain-specific AI assistant capable of generating accurate, compliant insights from over 250 structured data fields. The result was a 35% improvement in response speed, a 15% reduction in operational costs for routine queries, and a 10x increase in accessible data coverage. This freed their analysts and business teams from hundreds of hours of repetitive work annually and significantly accelerated market access planning. For your organization, adopting a similar AI solution could deliver measurable time and cost savings, while improving decision quality and compliance readiness. Our industry-specific expertise allows us to design and deploy these systems faster and with fewer revisions than generic vendors, keeping hourly rates between €30–60 and ensuring that the solution delivers a full return on investment within months.