

Eli Skeans

Senior Data Engineer & Reservoir Engineer

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Professional Summary

A full stack data engineer who has built a niche skillset in aggregating, cleaning, storing, analyzing and delivering large geospatial datasets to support business needs across various industries. Starting in the oil & gas industry I worked as a Reservoir Engineer building and running 3D subsurface models. Building these models requires cleaning and staging large quantities of disparate geospatial data. This is where I began my data engineering journey; while the end product were physics based simulation results, the brunt of the work was staging and processing data. Working across many countries and clients I received great exposure to many disparate data systems and data types.

During the oil and gas work I also participated in large scale machine learning initiatives where I began my first foray into distributed computing using Apache Hadoop/Spark pipelines. At that time I also began hosting interactive dashboards to host results for clients using AWS EC2 instances; this was my first venture into DevOps.

Later, during COVID I was funded to receive a Master's in Data Management from Colorado State University. This allowed me to market my data skills and pursue a career outside Oil & Gas specifically focused on my GIS / Earth Science data engineering skills.

I then worked with a contractor to build geospatial databases and products for the United States government including the DOT, USFS and BLM. My last assignment was as a lead data engineer on the build out of their Mineral Leasing Record System (MLRS); a system composed of multiple disparate data warehouses, user-applications and reporting tools. I created a business rules audit pipeline for this system which scans data at various stages against hundreds of business rules; testing and assuring data quality.

After moving to Logic2020 as a Senior Developer I began working with large utility companies in California. I developed a parallelized risk detection pipeline for 3TB of LiDAR data of varying quality and vintage which feeds a risk management system; informing field crews where to focus on mitigation work.

Currently I am a Technical Lead Foundry Architect for Pacific Gas & Electric modernizing existing pipelines and developing greenfield pipelines to support customer notifications and field maintenance work.

Additionally I curate these skills with personal projects as well. I developed the tech stack for an Oil & Gas startup which includes a 3D wellbore visualizer for hundreds of thousands of wells hosted using AWS S3 achieving a lean architecture which costs <\$1 to host and serve. I've also created a WildFire alert tool which streams live satellite data from various data sources; identifies hotspots which are likely wildfires; alerts users if a fire is detected within a radius of a given location. This application utilizes a streaming pipeline architecture composed of EventBridge (AWS and Flink).

Technical Skills

- **AI:** Enterprise AI-DLC framework, agentic workflows, context-control, Claude CLI, Cursor, Github Copilot
- **ETL & Data Pipelines:** Python, SQL, dbt, Foundry Pipeline Builder, Snowflake, Apache Flink
- **GIS:** Geopandas, GeoJSON, Parquet, FileGDB, ArcGIS/QGIS, PostgreSQL/PostGIS, PySpark, Sedona, Leaflet, LiDAR, Remote Sensing, MODIS, EventBridge, AWS Lambda

- **Cloud & DevOps:** AWS (EC2, S3, RDS, Fargate, Route53, etc.), Snowflake, Google Cloud Platform (BigQuery, DocumentAI, Sandbox), Docker, Git
- **Databases:** Snowflake, PostgreSQL/PostGIS, SQL Server, SQLite, Redshift, BigQuery
- **Applications:** Next.js, React, Docker, Streamlit, Django, Foundry Workshop
- **Reporting & Visualization:** ArcGIS/QGIS, Streamlit, Potree, Power BI, Tableau, React, MapLibre, Plotly, D3
- **Agile Collaboration:** SAFe Agile, Git, DevOps, Jira, Kanban

Professional Experience

Senior Developer & Architect

Logic2020 Inc. — Oct 2025–Present | Remote

- Developed an analysis pipeline for San Diego Gas & Electric which processes 3TB of LiDAR data. Data was spatially indexed for smart partitioning for chunked parallel runs. Pipeline indexes, sorts, chunks, processes feature coding, denoises point-cloud data, identifies foreign objects within a threshold distance of electrical equipment, ranks risks and feeds a risk planning dashboard with a nested potree viewer for 3D visualization. A ~15 SLA was achieved for this process end-to-end.
- Technical Lead Foundry Architect for customer notification pipelines with Pacific Oil & Gas (PG&E) based in San Francisco. Part of the Data Analytics Architecture team. Leader in the enterprise AI transformation effort moving from SAFe Agile → AI-DLC (Cutting edge AI-based development cycle developed by AWS)

Senior Architect Consultant & Data Engineer

Xentity Corporation — Oct 2022–October 2025 | Remote

- Built and maintained automated ETL pipelines integrating spatial and tabular data for USFS, BLM, and DOT
 - Designed spatial data workflows using Python and PostGIS for PLSS, mining, and land use datasets
- Delivered interactive dashboards and web apps for internal and public-facing use (Experience Builder, AGOL, Power BI, Open-Source, etc.)
- Supported data quality workflows for MLRS (Land Records, Mining Claims, Leasing)
- Led stakeholder discovery sessions and translated technical findings for executive briefings
- Recognized as Employee of the Year (2023); mentor for junior staff and member of Hiring and Business Development team

Stable Energy Group, Chief Technology Officer (CTO)

Stable Energy Group — Apr 2024–Present | Remote

- Developed the full stack from discovery to production for application supporting an Oil & Gas Royalty Brokerage
- Partnered with CEO to develop a roadmap to build out interactive geospatial application for internal deal evaluation (enterprise dashboard connected to live cloud services)
- Developed architecture and built user facing application using Django and Mapbox
- Manage AWS cloud services where application are deployed to production (ECS, Fargate)

Data Engineer & Reservoir Engineer (Contract)

Self-Employed — Apr 2022–Present | Denver, CO

- Delivered pipeline automation, GIS integration, and dashboard tools for reservoir and analytics projects (Private Oil & Gas Equity Groups)
- Integrated unstructured subsurface datasets into geospatial frameworks (Oil & Gas geospatial data modeling and solutions development)

- Provided curriculum content for data engineering and GIS education platforms (CodeAcademy)

Adjunct Faculty – Petroleum Data Analytics

Colorado School of Mines — Dec 2018–May 2021

- Provided Spotfire training for Petroleum Engineers in coordination with TIBCO
 - Integrating data from various sources
 - Curating data to achieve business intelligence needs
 - Incorporating complex analysis and machine learning workflows into dash functionality
- Taught graduate-level courses on Python, R, and Monte Carlo simulation for resource analytics
- Designed curriculum integrating engineering economics, geostatistics, and spatial analysis

Lead Reservoir Engineer

Surtek — Aug 2017–Apr 2022 | Golden, CO

- Led compositional and thermal EOR modeling for national Oil Companies in the Middle East, South America, and Canada
- Built Spotfire dashboards for domestic deal valuations to support Private Equity deals and for asset management to our consulting partners
- Integrated lab and field data into multi-pattern full-field models using CMG, ECLIPSE, Petrel
- Published SPE papers and peer-reviewed studies on EOR technologies and ASP flood development

Education

- MS, Data Analytics & International Management — Colorado State University Global, 2020
- BS, Petroleum Engineering — Colorado School of Mines, 2018
- BA, International Business – The University of Akron, 2013

Publications

- SPE Journal: Polymer Flood Pilot Design – Sabriyah, Kuwait
- Journal of Petroleum Technology: ASP Flood Analysis – Saskatchewan, Canada
- <https://medium.com/@elibenjamin>