

Dylan Chennault

Professional Engineer (PE) | Project Management Professional (PMP) | Industrial Operations & Data Science
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PROFESSIONAL SUMMARY

Licensed petroleum engineer and project manager with five years across heavy oil production, subsurface reliability, and data systems. Combines a chemical engineering foundation and a data science master's degree with Python, SQL, and generative artificial intelligence (AI).

Results include \$1.4M in annual savings from a novel pump technology, 100+ barrels of oil equivalent per day (BOEPD) from data-driven stimulation targeting, and a single source of record built during a major acquisition.

PROFESSIONAL EXPERIENCE

California Resources Corporation, Bakersfield, CA

Project Engineer, Project Management Office (PMO) | 08/2024 - 02/2026

Led data science projects across drilling, operations, capital, and well abandonment programs, building dashboards and SQL data pipelines for the California asset portfolio.

- Designed and ran a field-wide rig-schedule pilot; when topline results were flat, isolated the responding wells with Python, SQL, Tableau, and TIBCO Spotfire, securing an estimated 20% cut in their non-productive time.
- Unified subsurface data for the Aera Energy acquisition, pairing generative AI with SQL to reconcile hundreds of schemas and thousands of unique fields into a single queryable source of record.

Aera Energy LLC, Bakersfield, CA

Acquired by California Resources Corporation in 2024.

Production Engineer, Coalinga Heavy Oil Surveillance | 04/2023 - 08/2024

Maximized safe production for the Coalinga heavy oil asset through lift optimization, acid stimulation, and cyclic steam; led production meetings and business reviews.

- Grew base production by 100+ BOEPD on minimal capital by mining surveillance data with Python, SQL, and Tableau into a targeted package of stimulation candidates.
- Built and owned a Tableau-based system for tracking and executing non-rig jobs, cutting non-productive time with gains that held after handoff.

Production Engineer, Subsurface Reliability | 06/2021 - 04/2023

Engineered workover well plans, including rod, pump, and tubing design, and managed rig and checkout crew backlog with on-site oversight in Belridge and Lost Hills.

- Generated \$1.4M in annual savings by field-qualifying a novel pump technology and driving it into standard practice.
- Cut \$500K in annual material spend with no rise in failure rates by authoring a non-American Petroleum Institute (API) sucker rod classification that rerouted thousands of reclaimed rods from scrap to non-critical wells.

Data Science Intern | 05/2020 - 08/2020

- Shipped a Python tool that scored every add-pay opportunity in a deep, light, sweet crude reservoir, producing a self-updating shortlist of the top 3% of candidates.

Production Engineering Intern | 05/2019 - 08/2019

- Prioritized flowing-risk mitigation across a 1,500-well portfolio using probabilistic models in JMP.

University of Southern California (USC) Viterbi School of Engineering, Los Angeles, CA

Sustainable Energy Engineer | 10/2020 - 12/2020

- Developed plans to convert orphaned wells into compressed-air energy storage, identifying sites capable of holding 5+ MWh of surplus renewable generation.

Researcher, Geosystems Engineering and Multiphysics (GEM) Lab | 03/2018 - 05/2019

- Coupled lab experiments with finite element modeling to image hydraulic fracture geometry from offset-well pressure data; published and presented at the 2020 Society of Petroleum Engineers (SPE) Western Regional Meeting.

EDUCATION

Master of Science (M.S.), Engineering (Data Science Engineering) | 2024

University of California, Los Angeles (UCLA), Samueli School of Engineering, Los Angeles, CA

Capstone: Recurrent neural network (TensorFlow, Keras) with Adam optimization to improve oilfield steam generation.

Bachelor of Science (B.S.), Chemical Engineering, Minor in Accounting, cum laude | 2021

University of Southern California, Viterbi School of Engineering, Los Angeles, CA

Lyman L. Handy Outstanding Academic Achievement in Petroleum Engineering Award

Orange County Engineering Council Student Engineer Award

LICENSES AND CERTIFICATIONS

- **Professional Engineer (PE), Petroleum**, State of California, License No. P 1919
- **Project Management Professional (PMP)**, Project Management Institute, Certification No. 4440138
- **Lean Six Sigma Green Belt**, Aera Energy LLC

SKILLS

Engineering: Production Engineering, Artificial Lift Optimization, Well Stimulation (Acid and Cyclic Steam), Perforation Design, Workover Design, Subsurface Reliability, Exception-Based Surveillance, Root Cause Analysis, Economic Evaluation, Finite Element Modeling

Project Leadership: Project Management, Stakeholder Management, Cross-Functional Leadership, Roadmapping and Pilot Design, Agile Development and Scrum, Lean Six Sigma, Key Performance Indicator (KPI) Definition

Data Science and AI: Machine Learning, Neural Networks, Natural Language Processing, Reinforcement Learning, Probabilistic Modeling, Large Language Model (LLM) Data Integration, Prompt Engineering, Agentic Coding, Automated Reasoning

Data Engineering and Analytics: Extract-Transform-Load (ETL) Pipelines, Dashboards and Business Intelligence, Data Visualization, Data Mining, Workflow Automation, Tool Design

Programming: Python (pandas, NumPy, SciPy), SQL (Oracle), JavaScript, HTML, Git

Machine Learning Frameworks: TensorFlow, Keras, PyTorch, scikit-learn

Software: Tableau, TIBCO Spotfire, JMP, Claude Code, Jira, Microsoft Excel