

The AI-Ready Engineer

A 12-month roadmap for becoming an AI-ready oil & gas professional

You do not need a computer science degree to be AI-ready. You need a structured path from concept fluency to applied, visible results. Here is the roadmap, phase by phase.

Phase 1 Foundations (Months 1-2)

- Learn what AI/ML actually means in an oil & gas context - supervised learning for production forecasting, computer vision for corrosion/pipeline inspection, NLP for parsing well reports. No coding required yet, just concept fluency.

Phase 2 Tools, Not Theory (Months 3-4)

- Get hands-on with approachable tools: Excel/Power BI with AI add-ins, ChatGPT/Claude for accelerating report writing and literature review, and no-code ML platforms to build a first predictive model on public well data.

Phase 3 Applied Projects (Months 5-7)

- Pick one real problem from your job - decline curve forecasting, artificial lift failure prediction, drilling time estimation - and build a small model or use an existing platform to solve it, even imperfectly.

Phase 4 Domain-Specific Platforms (Months 8-10)

- Get familiar with the industry-specific AI/analytics platforms your company or peers use for reservoir simulation, production optimization, or predictive maintenance.

Phase 5 Visibility (Months 11-12)

- Present your project internally, write it up as a short LinkedIn post or SPE paper, and volunteer for the next digital transformation initiative at your company. Being AI-ready is not just a skill - it is a reputation.

Your move: Do not try to do all five phases at once. Commit to Phase 1 this month, and let the rest follow in sequence.