Arjun Mehta

RESERVOIR SIMULATION ENGINEER

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SUMMARY

Reservoir simulation engineer with 6 years building and history matching full-field models in ECLIPSE, CMG and tNavigator for Gulf of Mexico and onshore fields. Runs uncertainty analysis with Python workflows, handles PVT analysis for compositional studies and turns simulation results into drilling and recovery decisions.

EXPERIENCE

Reservoir Simulation Engineer
03/2023 - Present

Westlake Subsurface Consulting — Houston, TX

Reservoir studies firm serving 15 operators in the Gulf of Mexico and onshore US.

- Build and history match ECLIPSE and tNavigator models for **9** client fields, matching pressure within 4%.
- Run uncertainty analysis on 200-case ensembles with Python scripts, giving P10, P50 and P90 recovery ranges.
- Develop CMG compositional models for 2 gas injection studies, including PVT analysis from lab reports.
- Cut model run time 45% by coarsening grids and running cases in parallel on a 64-core cluster.

Reservoir Engineer
01/2021 - 02/2023

Sabine Offshore Energy — Houston, TX

Deepwater operator with 4 producing fields in the Gulf of Mexico.

- Constructed **4** deepwater simulation models from Petrel geologic grids with the geoscience team.
- Matched 12 years of production on a 26-well Miocene field and identified 3 infill targets.
- Forecast waterflood response for 5 injector patterns, supporting a $70M sanction decision.
- Wrote reservoir simulation reports for partner meetings and answered 30+ technical queries.

Graduate Research Assistant
08/2019 - 12/2020

University of Texas at Austin — Austin, TX

Research on CO2 storage in saline aquifers within the petroleum engineering department.

- Researched relative permeability effects on CO2 storage using **150** CMG simulation runs.
- Automated input deck generation in Python for a 3-person research group, saving 6 hours per study.
- Published 1 SPE conference paper on CO2 plume migration with 2 faculty co-authors.

SKILLS

Reservoir Simulation | History Matching | ECLIPSE | CMG | tNavigator | Petrel | Python | PVT Analysis | Uncertainty Analysis | Communication Skills

EDUCATION

Master of Science
12/2020

University of Texas at Austin — Austin, TX

Petroleum Engineering