MANAV DIVYESHKUMAR PATEL

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EDUCATION

UNIVERSITY OF TEXAS AT AUSTIN

MSc Petroleum Engineering

• Graduate Research Assistant at Hildebrand Department of Petroleum and Geosystems Engineering

PANDIT DEENDAYAL ENERGY UNIVERSITY

Bachelor's in Petroleum Engineering with CGPA of 9.81/10

- **2nd Rank** in the Petroleum Engineering Batch of 164 Students.
- Reciprocal Semester Exchange Student at the University of Oklahoma for Fall 2021
- Member of the Board of Studies (BoS) for the Department of Petroleum Engineering at PDEU.

EXPERIENCE

THE UNIVERSITY OF TEXAS AT AUSTIN

Graduate Research Assistant

- Project Name: "Improvements of a Hydraulic Fracturing Workflow: Static Model Upscaling, ISIP's and DFIT's Analysis."
- Conducted in-depth analysis of well logs and scratch test data to correlate core and wireline logs using Techlog and, utilizing cross-correlation methods to achieve accurate depth shifts. Integrated scratch test results to determine stress regimes and fracture orientations in a highly heterogeneous shale reservoir in Argentina, optimizing understanding of subsurface conditions and contributing to more precise fracture modeling in the ResFrac.

RELIANCE INDSUTRIES LIMITED

Subsea Production and Flow Assurance Engineer

- Ensured proper remote operation through DCS and achieved daily production of 30 MMSCMD from Ultra-Deep R-Cluster, Satellites Cluster and MJ Offshore Gas Fields at KGD6 Block of KG Basin. Led the start-up, shutdown, handled upset and emergencies, optimized the process parameters and prepared permits and troubleshooting procedure as required.
- Demonstrated expertise in the subsea architecture and P&IDs, including XMT, SCM, Pipelines, Manifolds, Umbilical, Hydraulics System, Subsea Power and Comms Network, Valves, HIPPS, ESD, and Layers of Over Pressure Protection.
- Collaborated with a skilled team to simulate in OLGA and remediate hydrate in a critical well, ensuring uninterrupted operations through effective PDP and MEG injection. Achieved operational continuity and optimized performance to extend well life up to 8 years.

UNIVERSITI TEKNOLOGI PETRONAS

CCS Research Fellow

- Project Name: "Exploring Brine Removal Techniques for Enhanced CO₂ sequestration in saline aquifers: A Sensitivity Analysis and Optimization Study using CMOST module in CMG."
- Conducted a comprehensive analysis of sensitivity and built optimization model for parameters encompassing perforation depth, well location, CO₂ injection rate, brine removal rate and BHP for producer and injector wells, resulting in notable 9.63% increase in CO₂ storage capacity.

ROCK FLOW DYNAMICS

Reservoir Engineering Project Intern

- Project Name: "Brownfield Management: Waterflood Surveillance Framework, Streamline Simulation and Bright Water
 Polymer Flooding using tNavigator."
- Executed the streamline simulation on a Brown Field and utilized the findings to compute the drainage table, drainage graph, and drainage matrix and evaluated the injector efficiency, well-pair efficiency, and well allocation factor for the injector and producer wells.
- Introduced Producer/injector constraints, pattern modification, infill well drilling locations, Bright Water Polymer flooding locations. This initiative contributes to an impressive 11% increase in oil production.

Gandhinagar, Gujarat, India Graduation: **May 2023**

Expected Graduation: May 2026

Austin, Texas

Austin, USA

August 2024 – Present

Kakinada, Andhra Pradesh August 2023 – July 2024

Perak, Seri Iskandar, Malaysia November 2022 – October 2023

> Gandhinagar, Gujarat, India September 2022 – June 2023

KIRI GROUP

Reservoir Consultant

• Performed dynamic reservoir modeling, and history matching leading to accurate in-place, and recoverable volume calculations. Identified optimal locations for infill well drilling by pinpointing sweet spots. Suggested the possible workover needed to revitalize the old shut-off wells, currently from which the company is producing an appreciable amount of oil.

OIL AND NATURAL GAS CORPORATION LIMITED (ONGC)

Reservoir Engineering Intern

- Contributed to the Productivity Enhancement project at the Water and Gas control Laboratory, Institute of Reservoir Studies (IRS), specialized in Water Shut-Off and Profile Modification using Polymer Gel to address challenges in oil wells.
- Analyzed production/injection data through the diagnostics plots, including Chan and Hall's Plot, and identified the wells with water breakthrough, coning, and channeling issues through these plots.
- Formulated and synthesized polymer gel using PHPA and HQ for effective operations, resulting in remediation of reservoir challenges.

CERTIFICATIONS

- "Introduction to CMG's Modeling Workflows" by Computer Modelling Group Ltd.
- "CMOST for Thermal Applications" by Computer Modelling Group Ltd.
- "Modelling Unconventional Reservoirs with GEM and IMEX" by Computer Modelling Group Ltd.
- "Modelling Carbonate Naturally Fractured Reservoir" by Computer Modelling Group Ltd.
- "IBM Data Science Specialization" by IBM and Coursera
- ComboCurve User Certification

HONORS/ACHIEVEMENTS

INTERNATIONAL PETROLEUM TECHNOLOGY CONFERENCE (IPTC), 2023

• I got selected among the top 50 students across the globe as a Student Delegate (India) for Emerging Leadership Program by showcasing my competitive edge by my networking skills, active participation in global forums, and cultural adaptability to attend this conference organized by the PTT Exploration and Production Public Company Limited (PTTEP).

BHARAT SCOUTS AND GUIDES

• Selected to participate in the prestigious *President Award Testing Camp*, recognizing leadership, dedication, and excellence in Scouting. Awarded at the 17th National Jamboree for outstanding performance among 25,000 scouts and guides and welcomed the former President of India, Shri Pranab Mukherjee, as part of the event's distinguished activities.

ATAL BIHARI VAJPAYEE INSTITUTE OF MOUNTAINEERING AND ALLIED SPORTS

• Certified Swimmer and Water Rescuer by the Government of Himachal Pradesh. Experienced in a variety of water sports, including Rowing, Still Water Kayaking/Canoeing, Sailing, Rafting, Water Surfing, and Water Skiing.

PUBLICATIONS

- "Influence of Wellhead Pressure and Water Cut in Optimization of Oil Production from Gas Lifted Wells" Petroleum Research Journal | KeAi | <u>https://doi.org/10.1016/j.ptlrs.2021.09.008</u>
- "Synthesis of Aerographene for Oil Spill Remediation"
 Elsevier | Materials Today Proceedings | <u>https://doi.org/10.1016/j.matpr.2022.01.063</u>
- "The Role of Disruptive Technologies for Long Term Energy Sustainability: An Overview of Indian Scenario" AIP Conference Proceedings | <u>https://doi.org/10.1063/5.0116068</u>

PUBLICATIONS ACCEPTED/UNDER REVIEW

• "Optimizing Brownfield Production: Integrating Waterflood Surveillance, Streamline Simulation, And Bright Water Polymer Flooding"

2025 SPE Reservoir Simulation Conference | Under Review

Ahmedabad, Gujarat, India June 2022 – July 2022