

IRFAN MUHAMMAD JAFFAR

Petroleum Engineer

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ABOUT ME

Petroleum Engineer with one year of experience as a Technical Sales Engineer. Collaborate well in sales teams, and leverage my expertise with E&P client negotiations. My hands-on internships at SSGC and OGDCL, along with research experience in AI-driven drilling, equip me to deliver sustainable energy solutions. This opportunity will accelerate my technical and leadership growth through rotational training, global mentorship, and field assignments. I am committed to adding value to the organization.

EDUCATION

Mehran University of Engineering and Tech, Jamshoro, Sindh

September 2019-December 2023

Bachelor of Petroleum and Natural Gas Engineering (B.E)

CGPA: 2.97/4

EXPERIENCE

DRILLEXEC INTERNATIONAL

11 April 2024-Present

Technical Sales Engineer

Karachi

- Sourced and negotiated with new international suppliers, expanding the product portfolio and supporting new market entry.
- Led client prequalification efforts, registering OEMs with E&P companies for tender eligibility.
- Reviewed and submitted technical and commercial proposals aligned with tender requirements and industry standards.
- Handled bid bond and performance bond requirements in coordination with banks and financial institutions.
- Managed documentation: NDAs, contracts, POs, and payment terms (LCs, 30-day credit).
- Delivered online technical demos with OEMs, showcasing solutions to client teams.

SUI SOUTHERN GAS COMPANY INTERNSHIP (SSGC)

July 2023-August 2023

- Familiar with regulatory standards, safety protocols, and emergency response in the oil & gas sector. Karachi
- Observed pipeline integrity management procedures, including inspection, maintenance, and leak detection practices.
- Strengthened my career foundation by bridging academic concepts with field operations — preparing me for future roles in drilling, reservoir, or production engineering.
- Had the opportunity to interact with experienced professional engineers, which boosted my confidence and gave me a clearer vision of how to conduct myself professionally in future field roles.

OIL AND GAS DEVELOPMENT COMPANY LIMITED INTERNSHIP (OGDCL)

May 2022-June 2022

- Gained hands-on experience in gas processing, well drilling, maintenance, and optimization. Qadirpur Gas-Field
- Contributed to reports based on data analysis to improve operational decision-making.
- Observed and learned about well drilling operations and basic maintenance procedures.
- Interacted with engineers and technicians, gaining insights into operational tasks and teamwork.
- Adapted to working in a field environment, managing challenges such as heat and long working hours.

BBSHRDB ROBOTICS AND AUTOMATIC SYSTEM INTERNSHIP

October 2022-April 2023

- Gained skills in safety protocols, troubleshooting, and system diagnostics. Mehran UET Research Department
- Developed hands-on experience with Arduino and embedded systems.
- Acquired foundational knowledge in machine learning, neural networks, and robotics.

Projects

Intelligent Robotic Arm for Industrial Automation

Group-Work

- Built and programmed a 5-DOF robotic arm using Arduino and C++.
- Integrated sensors and machine learning for object detection and classification.
- Built a real-time control interface in python with safety and fault diagnostics.

AI-Driven Leak Detection in Gas Pipelines

Self-Work

- Developed ML models for pipeline leak detection using sensor data.
- Trained Random Forest and SVM classifiers on historical pressure/flow data.
- Proposed SCADA integration for real-time alerts and predictive maintenance.

Improving Drilling Efficiency by Minimizing Mud Loss in Various Rock Formations Using AI

Self-Work

- Applied AI to optimize drilling fluid performance and simulate mud loss across various lithologies.
- Evaluated cost-efficiency and environmental impact of AI-driven fluid strategies.
- Provided insights to minimize formation damage and improve drilling efficiency.

TECHNICAL SKILLS

Languages: Python, C++, MATLAB, HTML, CSS

Frameworks: Beautiful Soup, Tensor Flow, Pandas, NumPy, Scikit-learn, PyTorch, OpenCV, Matplotlib, Seaborn

Tools & Platforms: Proper,Reveal, Eclipse,MBAL, Jupyter Notebooks, VS Code , PyCharm, Git, GitHub,

Concepts: Deep Learning, NLP , ML, SCADA,OOPs

ACHIEVEMENTS

- Selected for a competitive government internship in Robotics and Automation Systems.
- I've negotiated and secured OEM contracts exceeding \$1M.
- Runner up in Petro-Quiz Competition 2022

Muet Szab Khairpur Campus