Isaiah Fernandes

Mechanical, Oil & Gas, Field Engineering | MEng

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Experience

Subsea Processing Engineering Analyst **– Texas A&M University**   Nov 2024 – May 2025

- Performed engineering analysis and design studies supporting offshore field development including subsea tie-back configurations, multiphase flow behavior to improve hydrocarbon production efficiency, ensuring compliance with standards.
- Worked cross-functionally with project teams to prepare technical reports, research proposals, and design documentation. Performed data collection, analysis, and literature reviews to align project objectives with goals.
- Developed detailed CTR (Cost–Time–Resource) sheets for offshore pipeline installation activities, defining engineering man hours, installation timelines, and resource requirements to support EPC planning, cost estimation, and scheduling.
- Conducted comprehensive flow assurance studies for subsea pipelines, including pipeline wall-thickness design with insulation and chemical injection strategies derived from reservoir profiles, to ensure stable flow, mitigating hydrate and wax risks.

Machine Learning AI Engineer **– Resolve Tech Solutions**   June 2025 – Sept 2025

- Collaborated with RTS to develop and deploy AI solutions, in cooperating Machine Learning to address engineering problems. Applying automation techniques and models to databases, streamlining, and optimizing system operational workflows.
- Led an end-to-end initiative to design and deploy agents capable of generating validated, structured outputs from large, engineering and financial datasets enhancing data accuracy by 30% in project execution evaluation, planning, reporting.

Leadership Experience

Co-Head of Sponsorship **– Madgear Motorsports**   Aug 2020 - May 2021

- Collaborated in designing, fabricating, and testing an off-road vehicle for SAE BAJA INDIA using SOLIDWORKS and ANSYS. Optimizing reliability and performance like 10% weight reduction done through in-house fabrication and testing.

Co-Head of Informal Events **– DBIT Event (Colosseum)**   Aug 2019 - May 2020

- Led strategic planning, resource management, and coordinating teams, overseeing procurement, logistics, and approvals while managing a team of 30 across multiple groups using Gantt charts to track progress, allocate budgets, and meet deadlines.

Publications

OnePetro OTC-35905-MS | https://doi.org/10.4043/35905-MS   Presented at Offshore Technology Conference, May 2025

Application of a Multiphase Flow Simulator for Production Optimization of Tiebacks Using Subsea Multiphase Pumping: To Evaluate the production optimization of offshore tiebacks using multiphase pumps and to analyze the added production beyond the natural production.

Education

Texas A&M University - Master of Engineering in Engineering, Subsea Engineering – [3.875/4]	College Station, TX, 2022-2024
University of Mumbai (DBIT) - Bachelor of Engineering in Mechanical Engineering – [7.13/10]	Mumbai, India, 2017-2021

Professional Certifications

Texas A&M University - Engineering Project Management Certificate	2022-2024
Project Management Institute PMI - Certified Associate in Project Management [CAPM]	2026
Autodesk Certified - CAD/CAM/CAE for Mechanical Engineering	2021

Projects

Design of a Riser - Flowline   Designed riser flowline wall thickness per API RP 1111 standards and analyzed free-hanging SCR performance under environmental loads using static and dynamic simulations in Orca Flex.

Petroleum Project Evaluation   Conducted reserve analysis and economic evaluation projects, building cash flow models for multiple wells to assess drilling viability and forecast production economics, supporting strategic development decisions.

Software Proficiency

OLGA	Amazon Web Services - AWS	SAP ERP
Orca Flex	Fusion 360	MS - Project
DS – SOLIDWORKS	ANSYS	Python Language

Skills

CFD + FEA Simulation	Supply Chain	Machine Design
Machine Learning	Project Engineering-EPCIC	Heat Transfer
Piping	Front-End Engineering Design FEED	HVAC