Isaiah Fernandes

Mechanical, Oil & Gas, Field Engineering | MEng

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Experience

Machine Learning AI Engineer – Resolve Tech Solutions   June 2025 onwards
- Collaborated with RTS to develop and deploy AI solutions, in cooperating Machine Learning to address engineering problems. Applying machine learning models to real-world databases, streamlining, and optimizing system operational workflows.
- Led and delivered a full-cycle project to develop Bedrock AI agents that generated structured financial data outputs from a vast complex database all while increasing data accuracy by 40%+, while coordinating with engineers to ensure execution.

Subsea Processing Engineering Analyst – Texas A&M University   Nov 2024 – May 2025
- Lead research initiatives to advance subsea processing, boosting, flowline operability, and production operations through experiments and simulations. Using engineering-specific tools and methodologies for research and reports.
- Collaborated with teams to draft research proposals, technical reports, ensuring data collection and interpretation to publish findings while conducting literature reviews to align objectives with innovative solutions.

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.
- Secured financial funding and material support by fundraising and sponsorships by building relationships with industries. Oversaw finance, ensuring smooth team operations and adherence to timelines while fostering industry partnerships.

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.
- Synchronized cross-departmental efforts, resolved real-time issues, and handled negotiations for deliverables. Conducted risk assessments, contingency planning, to ensure client satisfaction and drive process improvements based on feedback analysis.

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 tiebacks using multiphase pumps and to analyze the added production of oil beyond the natural production.

Education

Texas A&M University - Master of Engineering in Engineering, Subsea Engineering – [4.0/4]	College Station, TX, 2022-2024
University of Mumbai - Bachelor of Engineering in Mechanical Engineering – [7.13/10]	Mumbai, India, 2017-2021

Professional Certifications

Texas A&M University - Engineering Project Management Certificate – [3.75/4]	2022-2024
Project Management Institute PMI - Certified Associate in Project Management [CAPM]	2025
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	Orca Flex
AWS Bedrock	Fusion 360	MS - Project
DS – SOLIDWORKS	ANSYS	Python Language

Skills

CFD/FEA Simulation	Supply Chain	Machine Design
Machine Learning	Project Management	Heat Transfer
Data Analysis	Project Engineering – FEED/EPC	HVAC