Ahmed N. Alfahdi

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PROFESSIONAL SUMMARY

Mechanical engineering graduate with hands-on training in pipeline design and wireline/TCP operations. Proficient in Ansys and SolidWorks, with practical experience in automation (PowerShell, Bash, PLCs). Strong commitment to safety (H2S/SO2 certified) and eager to contribute to junior mechanical or petroleum engineering roles. Additionally, have a keen interest in software development and reverse engineering, with foundational skills relevant to modern engineering environments.

EDUCATION

German University of Technology in Oman (GUtech)   Halban, Oman
Bachelor of Science in Mechanical Engineering   *Jan 2018 — June 2023*

- Dean's List (Spring 2023, Winter 2022)

Pennsylvania State University   University Park, PA
Coursework toward B.S., Materials Science and Engineering   *Jan 2013 — May 2017*

TECHNICAL SKILLS

- Engineering software: Ansys (simulation), SolidWorks (CAD/CAM/CAE)
- Scripting & automation: PowerShell, Bash; PLC programming; SBC prototyping
- PLCs: Programming and configuration for industrial automation and control systems
- Systems: Windows and Linux; Docker; documentation with LaTeX/Markdown/Typst

PROFESSIONAL EXPERIENCE

TCP & Wireline Engineering Training   May 2024 — Nov 2024
Ray Group   *Marmul Oil Field / Nizwa Workshop*

- Completed OPAL (EMDAAD) six-month program covering wireline logging and TCP operations
- Supported open- and cased-hole logging (SP, Sonic, Resistivity, Density, Neutron, CBL, MIT)
- Prepared/assembled TCP strings (gun systems, firing heads, packers/BPVs) following HES explosive-handling procedures for HMX, RDX, and PENT explosives
- Assisted with fiber-optic perforation setups and pre-job readiness checks/documentation

Pipeline Engineering Training   Oct 2021 — Jul 2022
PDO   *MAF / Fahud / Qarn Alam*

- One-year EIDAAD program across pipeline design, construction, and integrity management
- Produced design calculations (wall thickness, buoyancy, upheaval buckling, road crossings) and alignment drawings to ASME B31.4/B31.8
- Supported construction workflows: hydrostatic testing, NDT coordination, and documentation (HSE Plan, QA/QC, ITP, AFC)
- Contributed to concept studies (CAPEX/OPEX, route selection) and simulations (PIPSIM, Pipeline Studio, OLGA); performed material/corrosion assessments

PROFESSIONAL CERTIFICATIONS

- H2S & SO2 Entry Permit
- ISO 45001:2018 (2024)