Mohamed AlKharraz

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PROFESSIONAL PROFILE

Dedicated junior Automation and Software Engineer with expertise in oil and gas, SCADA systems, production optimization systems, IOT, AI and ML. Earned first place award for my graduation project. Strong ability to collaborate and work in a team environment on multi-disciplinary projects. Eager to contribute my technical and interpersonal expertise, in problem solving and delivering impactful results.

EXPERIENCE

Weatherford
Automation & Software Engineer | October 2022 - Present

- Working as a support engineer at Tatweer Petroleum, providing technical assistance, resolving issues, and maintaining systems to ensure seamless operations.
- Upgraded the legacy wells SCADA system for the entire Bahrain Oil field, transitioning from outdated infrastructure to a cutting-edge Industry 4.0-enabled SCADA platform.
- Collaborating with cross-disciplinary teams to successfully integrate various reports, synchronize information across integrated systems, improving data accuracy and integrity.
- Engineering in-house automation solutions, reducing reliance on external vendors to cut costs.

Ministry of Finance and National Economy
Specialist | September 2022

- Compiled and analyzed Bahrain economy data to enhance the GDP forecast and collaborated with other teams to maintain dashboards for management reporting.

Tatweer Petroleum
Artificial Intelligence and Data Science Engineer Intern | September 2021 - August 2022

- Developed machine learning models to forecast oil production using sensory data.
- Created business intelligence dashboards, visualizations, and reports to provide actionable insight.
- Increased operations productivity by building workflows to monitor equipment downtime.

Gulf Equipment And Technology
Intern | June 2021 - Aug 2021

- Worked on compressed air systems design, gas generation, piping, AIRnet Pipes, Atlas Copco Optimizers, desiccant dryers and ventilation design.

EDUCATION

B.Sc. in Mechanical Engineering, University of Bahrain
September 2017- August 2021

- Graduated with excellence (GPA: 3.5/4.0)
- Awarded first place for the senior graduation project; Liquid Desiccant Air Conditioning

Secondary School Certificate - Physics and Mathematics
September 2014 - June 2017

CERTIFICATES

The Complete SQL Bootcamp: Go from Zero to Hero — Aug 2023, Udemy

Alarm Management (ISA-18.2 / IEC 62682) — July 2023, Exida

AWS Certified Machine Learning Specialty — Apr 2022, AWS

IBM AI Engineering Professional Certificate — Jan 2022, IBM

Machine Learning — Jul 2021, Stanford Online

Engineering Project Management Specialization — Aug 2020, Rice University

The Finite Element Method for Problems in Physics — Mar 2020, Univ. of Michigan

MEDIC First Aid — 2018, Bapco

Basics of Arduino — 2014, YC2030

PROJECTS

Upgrade a legacy well SCADA system for whole Bahrain oil field with IR 4.0 capabilities — 2023
• Integrated the new SCADA system with existing infrastructure
• Segmented the IT and OT network, complying with latest cyber security techniques

Evaporative Cooling System with Liquid Desiccant Dehumidification — 2021
• Awarded Best Mechanical Engineering Department Project (1st Place)
• Led the physics simulation process, included: Moisture transport, heat transfer and laminar flow

Design of a 5-Speed Manual Transmission for a FWD Toyota Car — 2020
• Designed and 3D modeled all components, performed fatigue Analysis simulation using Autodesk Inventor

Playground Swing Electricity Generation System (Junior Project) — 2019
• Designed and Manufactured a mechanisms which converts oscillatory motion to electrical current

SKILLS

- **Programming:** Python; C++; SQL; MATLAB; VBA; Linux; PowerShell; HTML.
- **Software:** Power BI; Autodesk AutoCAD; Autodesk Inventor; COMSOL Multiphysics; Ms Excel.
- **Analytical:** Data Analysis; Computational fluid dynamics; Finite element method; optimization.
- **Manufacturing:** Lathe; 3D Modelling & Printing; Power and Hand Tools; wire soldering.
- **Language:** English (fluent); Arabic (native); French (Intermediate); Spanish(Intermediate).

AWARDS

- **Kanoo Engineering Excellence Award 2021**

REFERENCES

- **Ali Sharaf** - Associate Director - Data Science at Tamkeen. E-mail: Ahsharaf@tamkeen.bh
- **Dr. Omar Al-Abbasi** - Head of Mechanical Eng Dept, University of Bahrain. E-mail: omabbasi@uob.edu.bh