Mohamed AlKharraz

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PROFESSIONAL PROFILE

Dedicated junior Mechanical Engineering graduated from the University of Bahrain with primary interests in mechanical design, fluid and thermal systems, simulation and Artificial Intelligence. I was awarded first place for the best mechanical engineering graduation project. Strong ability to collaborate and work in a team environment on multi-disciplinary projects. My expertise in Artificial Intelligence enable me to solve complex engineering problems in a creative way.

EXPERIENCE

Artificial Intelligence and Data Science Engineer Intern at Tatweer Petroleum
September 2021 - Present

- 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 a workflow to track and monitor equipment downtime

Mechanical Design Engineer Intern at Gulf Equipment And Technology
Summer 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 (GPA: 3.5/4.0)
September 2017- August 2021

- Awarded first place for the senior graduation project; Liquid Desiccant Air Conditioning
- Relevant Coursework: Engineering Graphics, Engineering Thermodynamic, Manufacturing Processes, Elements of Electrical Eng., Fluid Mechanics, Kinematics and Dynamics of Machinery, Design of Mechanical Elements, Measurement and Instrumentation, Heat Transfer, Vibration.

CERTIFICATES

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, University of Michigan

MEDIC First Aid — 2018, Bapco

Basics of Arduino — 2014, YC2030

PROJECTS

Green Cooling Cycle using Evaporative System with Liquid Desiccant Dehumidification — 2021
- Used liquid desiccant dehumidification in an evaporative system with low to no emissions
- Led the physics simulation process, included: Moisture transport, heat transfer and laminar flow
- Awarded Best Mechanical Engineering Department Project (1st Place)

Design of a 5-Speed Manual Transmission for a FWD Toyota Car — 2020
- Designed and 3D modeled gears, shafts, bearings, housing and the mechanical keys
- Performed AGMA analysis, and Fatigue Analysis simulation using Autodesk Inventor

CV Axle Fatigue Failure Simulation — 2020
- Designed all components and run FEA simulation to withstand fatigue loading

Playground Swing Electricity Generation System (Junior Project) — 2019
- Customized several parts in the Workshop using various fabrication processes
- Designed and Manufactured a mechanisms which converts oscillatory motion to electrical current

Lathe Machine Tool Post Design— 2018
- Improved a Lathe Machine tool post by redesigning the tool post to work under lower power and forces

SKILLS

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

AWARDS

- **Kanoo Engineering Excellence Award 2021**

REFERENCES

Ali Sharaf
Associate Director - Data Science at Tamkeen.
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