

Khalaf Alanazi

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Dubai, UAE

EDUCATION

North Carolina State University, Raleigh, NC

12/2024

Master of Engineering Management

Florida Institute of Technology, Melbourne, FL

12/2021

Bachelor of Science in Mechanical Engineering

SKILLS

Software & Tools: AutoCAD 3D, Revit, Creo, SolidWorks, ANSYS, Navisworks, BIM360, Procore, HAP, Trace 700, Project Management Software

Technical Skills: DFM, 3D Printing, CNC Machining, HVAC Systems, Statistical Process Control (SPC)

Project Management: Construction Management, Stakeholder Management, Gantt Charts, ROI Analysis, Aircraft Maintenance Planning

CERTIFICATIONS

Engineering Management Foundations Certificate

OSHA 30-Hour

Lean Six Sigma Green Belt & Yellow Belt

Intro to Machine Guarding Certification, Northern Illinois University

WORK EXPERIENCE

Engenium Group, Washington, DC, USA

12/2024-09/2025

Mechanical Engineer I

- Designing and coordinated mechanical utilities (cooling, water, drainage, fire protection)
- Performing system calculations to ensure safety and compliance
- Coordinating with multi-discipline teams to resolve design and site issues
- Supporting QA/QC documentation and regulatory approvals

Jorda Mechanical Contractor, Tampa, FL, USA

12/2021-08/2023

Project Engineer

- Worked on various HVAC systems for high rise commercial buildings such as Split System, VRF System, & Chilled Water System
 - [Bayso Project](#)
 - [Modera Project](#)
 - [AER in the District Project](#)
- Managed utilities installations for high-rise and large facilities
- Produced shop drawings and 3D Revit models for utilities networks
- Coordinated with contractors for efficient project delivery
- Oversaw design reviews for HVAC and fire safety systems, ensuring adherence to quality and regulatory standards

Rapid Prototyping group Ltd, Dongguan, China

08/2021-12/2021

Engineering Intern (Remote)

- Designed eco-friendly cardboard packaging using CNC machines, reducing material waste and costs
- Developed an Excel database of mechanical properties to improve material selection and design workflows
- Prototyped injection-molded automotive components with focus on accuracy and performance
- Evaluated and optimized mold designs with a team to enhance manufacturing efficiency and product reliability

RELEVANT PROJECTS

North Carolina State University, Raleigh, NC

01/2024

Lean Six Sigma Project – Airport Operations Optimization

- Applied DMAIC methodology to analyze turnaround processes at RDU Airport
- Mapped ground crew workflows to identify delays and bottlenecks
- Proposed process improvements to streamline operations
- Validated proposed changes with Minitab models, showing significant efficiency improvements.

Florida Institute of Technology, Melbourne, FL

12/2021

Senior Design I & II – Formula SAE Tire Test Apparatus

- Designed and created a tire test apparatus using SolidWorks and validated performance in ANSYS
- Calculated payload and engine requirements to achieve the designated speed
- Assembled and tested the apparatus successfully within a limited budget and timeline

INVOLVEMENT AND LEADERSHIP

- Administered and arranged the weekly update presentations for the senior design
- Member of the Society of Automotive Engineers (SAE)

2020-2021

2020-2021