

Mian Sarmad Arif

Houston, TX (Open to relocation)
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SUMMARY

- Goal-Oriented Mechanical Engineer with expertise in SolidWorks and PTC Creo
- Proficient in Advanced Finite Element Analysis (FEA) and Computational Fluid Dynamics (CFD) techniques
- Hungry-to-learn more and adaptable to change; can play cross-functional role at any organization ranging from technical to leadership and management duties

SKILLS AND TOOLS

- PTC Creo
- ANSYS (Workbench+APDL)
- 3D CAD Modeling
- FEA (Finite Element Analysis)
- CFD (Computational Fluid Dynamics)
- MATLAB (Simulink)
- Production/Assembly Drawings
- Control Systems
- Thermal Analysis
- CAE (Simulation)
- SolidWorks
- Autodesk CFD
- Design Optimization
- Strong Communication Skill

EDUCATION

University of Texas at Arlington - Arlington, TX
Master of Engineering in Mechanical Engineering

May 2018

- Merit based academic scholarship
- Relevant course work: Analytic Methods in Engineering, Engineering Analysis, Fluid Dynamics, Advanced Finite Element Analysis (FEA), Control System Components, Advanced Thermodynamics

National University of Sciences and Technology (NUST) – Islamabad, Pakistan
Bachelor of Science in Mechanical Engineering

May 2016

- Merit based academic scholarship
- Only student from college selected to attend International Youth Conference (IYC)
- Editor and content writer at official online blog of the university (<http://alc.emealumni.com/blogs/>)

PROJECTS

- **Thermo-Electric Cooler:** Designed, modelled and fabricated Thermo-electric cooler using semiconductor Peltier devices achieving heat removing capacity of 65W (thermal and fluid simulation on CFD AutoDesk); first portable cooler with zero emissions and no moving parts
- **FEA Analysis:** Used tetrahedral elements, customized meshing and axisymmetric formulation of a circular plate under load on ANSYS APDL to calculate stresses and strains; 0.01% error with analytical results. (MATLAB for stepwise numerical solution)
- **Electro-Hydraulic Servo Control System:** Designed an electro-hydraulic servo control system of ailerons of an airplane with multidisciplinary optimization to improve the performance factors of the system including the dynamic response on MATLAB.

EXPERIENCE

Baker Hughes, a GE company – Houston, TX
Mechanical Engineer

Nov 2018 – Present

- Created Design Process Plans (DPP), Design Verification Plans (DVP) and Test Procedures (hydrostatic and gas) for surface well head equipment and oil field equipment such as casing heads and ring gaskets
- Completed more than 20 Engineering Work Requests (EWRs) from North America region
- Managed a team of 5 mechanical engineers for effective and on time delivery of customer requirements
- Created 45 unitized assemblies in PTC Creo for Baker Hughes product catalogue and upon customer request
- Created and updated more than 500 parts, assemblies and components according to API 6A 21st ed. compliance

BrandFX Body Company – Fort Worth, TX**Aug 2018 – Nov 2018*****Design Engineer***

- Designed a bumper for F-450 truck composite service body with towing capacity of 20,000 lbf along with FEA simulation for design validation on SolidWorks Simulation
- Used WorkWise ERP system to use available materials from inventory and modified designs accordingly reducing cost and scrap
- Designed a detailed installation manual for F-150 truck composite inserts to be sent to different BrandFX installation facilities across US where onsite engineering support is not available
- Performed drawing and CAD part revisions on Product Data Management (PDM SolidWorks)

University of Texas at Arlington - Arlington, TX**Jan 2017 – May 2018*****Mechanical Design Software Support (Student Assistant)***

- Designed a standard SolidWorks instruction manual that answered frequently asked questions resulting in 20% less inquiries
- Provided MATLAB and SolidWorks supplementary tutoring to undergraduate students
- Led a team of 8 lab assistants to conduct annual technology survey; received more than double (323) responses as compared last year which helped to improve labs and technology resources across the campus
- Managed security compliance project of university devices; achieved 100% compliance

Oil and Gas Development Company Ltd. – Islamabad, Pakistan**Sep 2014 – Apr 2016*****Mechanical Engineer Intern***

- Designed hydraulic pumps and mechanical components on PTC Creo according to GD&T standards
- Managed technicians in the preventive maintenance department; reducing service time by 9%
- Developed technical reports of machine life-cycle every week and presented to senior engineers; resulting in more effective preventive maintenance of the plant and less failures
- Evaluated recommendations for shifting all on-site plant monitoring to SCADA system. Conclusion: Early failure diagnosis, maintenance time reduction and at least 25% reduction in workforce if implemented

HONORS AND LEADERSHIP ACTIVITIES

- US State Department Sponsored KL-YES Alumnus
- AYUSA Award for Community Service (Volunteered 50+ hours in 3 months)
- Youth Leadership Summit (San Jose, CA) 1 of the top 50 exchange students from around the world
- President NUST Volunteers Club (NVC)