

HAIDER S. AL-KHAFAJI

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OBJECTIVE:

Mechanical Engineer seeking a full time position, An Opportunity to utilize my Skills, accept new challenge and grow in my profession.

Education

University of New Orleans

3.6 GPA

Master's in Mechanical Engineering May 2010

Major: Thermal Fluid Science & HVAC

University of Technology

3.2 GPA

Bachelor of Engineering in Mechanical May 2006

Major: Mechanical Engineering/ HVAC

Major Classes in Masters Program

- Advanced Energy Modeling of Buildings
- Computational fluid dynamics
- Intermediate heat transfer
- Advanced finite element analysis
- Advanced Continuum Mechanics
- Advanced Radiation heat transfer
- Hydraulic Fluid System Design
- Fluid Flow System Design
- Advanced Convection heat transfer
- Advanced Material

Professional Summary

University of New Orleans, New Orleans

2008-2009

- Conducted research and performed data analysis, gaining a good Hands-on experience with engineering apparatus such as heat exchangers, refrigeration cycles, heat pump, etc.
- Active student member of New Orleans chapter of **ASHRAE** and Attended conference which are included in **ASHRAE** New Orleans events.
- Presently doing Masters Project on "**Study of Thermal and HVAC System**".
- Experienced in Drafting and Modeling of 3D drawings in **AutoCAD**.
- Worked on thermal fluid science projects using **CFD** software (ANSYS) at University of New Orleans.

Technical Skills & EXPERINCE

- Mechanical software's: **AutoCAD 2007, ANSYS, E-Quest.**
- Programming Languages: **FORTRAN.**
- Frameworks: Microsoft Office 2008. Passed **ICDL test**

Career Projects

Material and loading design, University of New Orleans July- 2009

- This project mainly deals with the flow calculations for stresses and loads to find the deflection and the Beam size that required for the design using the program matrix analysis for structures.

Turbulent flow over a Cylinder in crosses Flow using CFD program, University of New Orleans 2009

- The Objective of this project is to compute the drag force and drag coefficient for a circular cylinder in cross flow by measuring the pressure distribution around the cylinder by using **ANSYS**, and then to compare the computed drag coefficient to known values.

ACME Elementary School Project, University of New Orleans November -2008

- The Objective of this study is improve the 60 years old elementary school building performance and efficiency, using E-Quest software, by comparing the values of baseline design(basic design) and **ASHRAE 90.1 2004** standards for this same building.
- The next step in the project was to get the 30% more efficient than **ASHRAE 90.1 2004** code by providing new design specifications like increasing the chiller efficiency or boiler efficiency or applying new interior finish and insulation with different R values, and with new duct design.
- The final report obtained from the **E-Quest** program are Cooling load, heating load, Total energy consumption, total electrical and gas Consumption, total cost of maintenance, are compared with base line design, **ASHRAE 90.1 2004** code and 30% improvement code.

ICE MAKER DESIGN Jun- 2006

- The Objective of this study is design Ice maker machine and finds the loads
- Next step in the project is defined the exact compressor that the machine needs to operate and makes specific amount of Ice cubs

DESIGN HVAC for office BUILDING

- The Objective of this project is design A/c system to Building which it dose have several Offices.
- By calculating the loads and the Building position effect to find out the required HVAC system
- Design the duct system and insulation requirements to save the largest amount of energy.

DESIGN A DAM and Spillway, University of New Orleans April-2009

- this project is dealing with hydraulic systems, water level and dam requirements which it has to be obtain for the design issue. Calculations have been done to find the height and width of the spillway. And also design fish way.

Certifications

- Trained to run **E-Quest** at University of New Orleans.
- Trained to run the Matrix Analysis of Structures.
- Certified in **AutoCAD** in Undergrad School Training Program.
- Certified in **AutoCAD** in Egypt (**Auto-Desk**) Training Program.
- Certified in **ANSYS** in Undergrad School Training Program.

Work industrial experience

- Official sales of industrial Companies
- Manager of Fabric and Sewing Company in Egypt
- Sale **generators** and **cell-phones**.
- Install HVAC and Cooler in A "Gas Station" and two apartments
- Install "**Split Units**" air-condition
- Manager of convince store in New Orleans

References

Available upon request