

Hassan Kassabaki
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OBJECTIVE

Highly active and detail-oriented Mechanical Engineer seeking an opportunity to work in a well established company where I can utilize my technical knowledge and interpersonal skills and pursue a continually developing career while contributing to the growth of the organization.

EDUCATION

Bachelor of Mechanical Engineering

2011-2015

Carleton University, Ottawa, ON

- Current year standing, 7.74 on a 12.0 scale, B
- Graduation date, June 2015
- Concentration: Mechanical Systems Design, Machine Design, Portable Air Compressor Gear Set, Gas Turbine

AVAILABILITY

- Available for full-time employment starting June 2015
- Willing to travel/relocate, locally or abroad, as job requires

KEY SKILLS

Technical capabilities

- Solving equations, using various applications of Matlab software, for the purpose of analyzing circuit problems and theories
- Designing Power Transmission Systems and selecting suitable mechanical components such as belts, gears and couplings
- Calculating the life span of different types of bearings and components and selecting a suitable size for given radial, thrust or fatigue loads and crack sizes
- Producing engineering drawings, using IntelliCAD software, and re-configuring 3D objects into 2D drawings, in multiple perspectives
- Computing power developed, turbine and pump efficiencies and enthalpies using Thermodynamics and Heat Transfer concepts, for the purpose of determining the efficiency of systems such as in power plants
- Modeling and meshing using mechanical design software ANSYS to view how flow results change with different mesh refinements and to determine which mesh produces the best results
- Analyzing gas path and flow through turbines and compressors, for given gas inlet conditions, in order to determine the performance of turbomachinery
- Determining the proper size of the heat exchanger required for given heat transfer figures
- Generating technical reports

Communication skills

- Tutored groups of students in various calculus courses and helped them improve their problem solving skills
- Wrote and published a paper pertaining to the school environment and reviewed and recommended improvements to the school's annual year book
- Communicated with professors and students via emails to propose technical ideas related to a design project for the improvement of cellular reception in the underground tunnels at the university

Leadership skills

- Assigned patrol duties to school prefects in order to ensure a safe school environment and helped create a set of rules for students to follow
- Analyzed and conducted frequent inspections on school reports to ensure that information is updated regularly
- Supervised classes of 100 students during exams period to assure proper order is observed and individual work is maintained

WORK EXPERIENCE

1. Carleton University Bookstore

August 2014-October 2014

- Unpacking books and verifying ISBN numbers against packing lists and purchase orders, and then, shelving them in accordance with corresponding courses codes and categories
- Assisting customers in finding their needs of books and school supplies, and reporting items of low stocks

APPLIED PROJECTS

1. Gas Turbine

2014-2015

4th year Mechanical Engineering Design Project at Carleton University

Scope included:

- Design and analysis of turbomachinery, heat exchangers and plant equipment that composed the gas turbine
- Design of a two-stage axial turbine, that is used in the expansion of supercritical carbon dioxide part of a simple regenerative cycle, which extracts energy from the fluid and converts it to useful work

2. Portable Air Compressor Gear Set

2014

4th year Mechanical Engineering Course at Carleton University, Mechanical Systems Design

Scope included:

- Utilizing of gears, shafts, bearings, couplings and gearbox housing to design a gear set for an Air Compressor that is used for driving air hammers on remote job sites
- Designing a shaft that connects a centrifugal clutch to the engine, and required ball bearings to prevent the shaft from moving axially

3. Design of a climbing Robot

2013

3rd year Mechanical Engineering Course at Carleton University, Mechanical and Aerospace Engineering Lab

- Collected the necessary raw materials for the robot's components utilizing knowledge acquired from Engineering Materials courses and concepts such as Power, Torque and forces learned from Engineering Dynamics courses
- Participated in building the robot with other members of the team, and following several trials we managed to guide it remotely to reach its designated finish line
- Produced with the team a comprehensive report that explains the objective of the experiment and the step by step details of the design

4. Cellular Reception at the Carleton University tunnels

2012

2nd year Mechanical Engineering Course at Carleton University, Communications skills for Engineering Students

- Analyzed propagation of waves and signal transmissions, and the wall tunnel materials using acquired knowledge from Engineering Materials and physics courses
- Assisted the team in finding solution to improve weak cell phone reception in the tunnels
- Compiled with the team a summary report that summarizes the entire project and highlighted the problems and proposed solutions

MEMBERSHIPS/AFFILIATIONS

Member of the Canadian Society for Mechanical Engineering