

Annas Khan

Chemical Engineering

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SKILLS SUMMARY

- Advanced knowledge of Material Balances, Energy Balances, Unit Operations, Process Flow Diagrams (PFDs) and P&IDs attained through coursework and research projects
- Adept at using computer software including Aspen Plus, MATLAB, AutoCAD, MS Office, and Java
- Acquired extensive knowledge of laboratory procedures used in wet chemistry through various projects
- Learned lab techniques such as Plasmid preparation, Transformation, Polymerase Chain Reaction and Flow Cytometry through involvement in student teams
- Exceptional report writing skills developed by writing detailed lab reports
- Achieved WHMIS certification
- Excellent organization and time management skills gained through various extracurricular activities
- Attained effective leadership skills through founding and managing the Young Muslims Club
- Exceptional presentation and interpersonal skills, with fluency in English, Hindi, Urdu and Punjabi
- Possess a valid Ontario class G2 driver license

EDUCATION

University of Waterloo

September 2012 - Present

Waterloo, Ontario

- Candidate for Bachelor of Applied Sciences in Chemical Engineering, Management Sciences Option
- Directed Research Project (CHE 298):
An Analytical Framework for Simulating and Optimizing the Natural-Gas-to-Hydrogen Production Process
 - Determined the optimal method of H₂ production by cross analyzing various factors such as waste emissions, energy consumption, water usage, capital and operating costs and the availability of the technology
 - Conducted material and energy balances as well as sensitivity analysis using Aspen Plus simulation software to address the effects of varying feedstock rates, compositions and operating conditions

WORK EXPERIENCE

Engineering Assistant

Environment Canada

September 2013 – December 2013

Toronto, Ontario

- Created MATLAB scripts to model Buoy Data through statistical measures such as histograms, time series, wind roses and error calculations
- Analyzed historical Wind Gust Data in EXCEL for the purpose of predicting weather conditions for the 2015 Pan American Games
- Presented research findings and recommendations to Pan American executives through a power point presentation outlining the climatology of the Great Lakes
- Developed a Quality Control software package using MATLAB to automatically filter erroneous data as per Meteorological Service of Canada (MSC) requirements

Web & Digital Content Intern

University of Waterloo

January 2013 – April 2013

Waterloo, Ontario

- Managed the migration of 500+ engineering websites onto the new Waterloo Content Management System using PHP and Cascading Style Sheets (CSS)
- Programmed a self-updating Gantt Chart in excel to plan the migration process
- Conducted several QA tasks to ensure all websites were in working order including resolving 404 errors
- Presented fundraising strategies to supervisors resulting in a 50% increase in donations to the Faculty

Lab Technician

Inspec-sol Inc

July 2012 - August 2012

Waterloo, Ontario

- Performed various geo-technical tests including proctor, gradation, liquid limit test of Atterbergs and concrete strength tests
- Conducted fieldwork involving the preparation and curing of concrete test cylinders and soil samples
- Compiled data and wrote detailed reports after effectively analyzing soil and aggregate samples
- Efficiently met crucial deadlines for lab investigations, liaising among various departments for project completion

CLUBS & TEAMS

Lab & Design Team Member

UW Internationally Genetically Engineered Machine Competition (IGEM)

January 2013 – Present

Waterloo, Ontario

- Contributed to the design of our project: Cell to Cell Communication
- Conducted lab work including Mini Preparation, Transformation, Polymerase Chain Reaction and Flow Cytometry
- Researched the optimum strain of E-coli for M13 bacteriophage infection
- Designed the club website according to IGEM competition requirements

Vice President of Events

UW Petroleum Energy Association (UW PEA)

September 2012 – Present

Waterloo, Ontario

- Co-hosted several club events including conferences and industry facility tours
- Networked with industry leaders to give seminars to Waterloo students regarding Energy issues

Youth Engagement Member

Engineers without Borders (EWB)

September 2012 – Present

Waterloo, Ontario

- Organized numerous events to increase awareness of fair trade within the local community
- Presented to elementary and high school students the issues pertaining to water sanitation and energy in developing countries, mainly Ghana & Malawi

AWARDS & ACHIEVEMENTS

- Recipient of Waterloo President's Scholarship of Distinction, for achieving 95% average
- DECA Provincial Top 10 medal winner, for both oral and written competitions
- Finished Top 10 in YouTube Space Lab Global Competition sponsored by Google, Lenovo and NASA
- Earned the Youth Community Award for completing 180 hours of volunteer work upon graduation