



# Muin Ahmed Alif

Geological Engineering

## TECHNICAL SKILLS

### Computer Skills

- AutoCAD
- Spreadsheet
- C Programming
- MATLAB
- Solid Works
- Sketch Up
- Stereonet 7
- ArcGIS

### Tools

- Rock and Mineral ID kit
- Power Tools
- Concrete Compression Machine
- Hand Drafting
- Tensile Stress Tester
- Brunton Compass

### Certification

- WHMIS
- Engineering Design Team Safety Orientation
- Preventing and Addressing Workplace Bullying and Harassment Training
- Driver's License

### Geological Skills

- Air Photo Interpretation
- Basin Analysis
- Well Log Interpretation
- Geologic Filed Mapping
- Cross-section Drawing
- Optical Mineralogy
- Thin Section Analysis

## ACADEMIC & CO-OP STATUS

### Academic Program

- Geological Engineering; 5 of 8 academic terms completed
- Anticipated date of graduation: May, 2019

### Co-op Status

- Completed 1/5 work terms; available for 8 or more months beginning May, 2017

## TECHNICAL WORK EXPERIENCE

### Megatech GNBD Dhaka Engineering Intern

May, 2016 – August, 2016

- Updated database every week to keep track of construction material for three different projects which saved costs of paper work and helped avoid managing receipts
- Prepared cost estimates and analysis for a construction project and logistics for the project which saved senior engineers time to prepare presentations
- Created detailed structural drawing for a larger project using AutoCAD with annotations to assist my supervisor
- Compiled detailed report on arsenic contaminated zones using data from ArcGIS to give the project manager the location of all contaminated tube-wells in rural areas so that proper migration measures could be taken
- Conducted occasional site visits and reported back with updates which gave a clear idea of how designs were being implemented in the field and to get a better idea of onsite obstacles which cannot be assessed from the office

## TECHNICAL PROJECTS

### UBC Concrete Toboggan - Superstructure

September, 2015 – Present

- Targeted the goal to design, construct, and race a toboggan with a sliding surface made of concrete; Toboggans must be under 300 pounds and carry five riders.; It must have a braking system, steering system and a roll cage
- Assisted with ideas to design the roll cage in order to reduce the amount of aluminum used in the design
- Coordinated with the steering and structure sub teams to build the toboggan more efficiently than previous years
- Designed the structures in solid works for simplicity and modeling so that it can be edited easily
- Competed with over 450 engineers in the largest student run engineering competition in Canada, Great Northern Concrete Toboggan Race 2016 and came in 2<sup>nd</sup> place overall in the competition

### Pipeline Design Project

November, 2015 – December, 2015

- Designed a pipeline to transport water from reservoir A to B, 133 km apart and 300m height difference
- Created macros in Excel to test out several possible outcomes without manually doing calculations which saved time and allowed to conduct several possible outcomes
- Transported the water only using optimum solution obtained given the restrictions of material and pumps, which saved an estimated USD 11,000,000

### Launcher Project

February, 2015 – March, 2015

- Designed, tested and made a launcher with a team which accurately fired 6 corks into 4 boxes
- Competed against over 30 other teams to show the accuracy of the launching mechanism
- Presented the whole design and testing process in front of other teams and received an A by fulfilling all the criteria

## OTHER WORK EXPERIENCE

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### UBC Recreation

September, 2016 – Present

#### *Futsal and Soccer Referee*

- Moderated games between different teams in the league to keep track of scores and fouls made in the game
- Resolved conflicts during games to avoid any violence and maintained the flow of the game by reminding players that everyone participating in the league play for fun
- Penalized players when required so that fair play was maintained and to avoid any unnecessary injuries

## VOLUNTEER WORK EXPERIENCE

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### Building President of Marine Drive Residence Association

September, 2016 – Present

- Organized events with a scale of 50 to 100 attendants to increase community engagement in student residence
- Calculated cost of events in order to avoid going over the allocated budget so that all events have equal financial resources to run smoothly
- Consulted with other members of the council once every week to have proper planning and updates of council function so that events would take place in proper time and to build a better flow of information among members

### Winner of 3<sup>rd</sup> Annual Geotechnical Engineering Competition UBC 2016

March, 2016

- Designed a tunnel for Hatch through a mountain for a bike race in order to minimize the cost of the race route
- Coordinated with a team of 4 people of 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year students to come up with various solutions and designs
- Presented in front of a panel of judges using power point to illustrate the different stages of the project and solutions to the various problems

### Participated in UBC Engineering Junior Design Competition

October, 2015

- Worked with 2 other 2<sup>nd</sup> year students to design a mechanism to transport an object from the bottom to the top of a mountain using only limited resources provided at our disposal
- Solved complicated problems of cutting and putting our launcher together by improvising, sometimes using very unorthodox techniques such as using the hot glue gun to cut through plastic as we had no cutting tools
- Presented in front of a panel of engineering judges from Kiewit discussing the various stages of the design and testing factors

### Reading Week Project

March, 2015 – March, 2015

- Explained to a class of 20 kids who require special attention about the importance of engineering by showing them different famous structures through slides and how different structures affect foundation
- Demonstrated 3 simple physics experiments to give them a better idea about physics and guided them in making different models
- Organized a small competition among the students at the end of the week-long project to evaluate how much they had learned where every single student performed above expectation so we had to award all of them equally
- Got offered to return as a reading week project coordinator due to my performance in the previous year's program

## EDUCATION

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### University of British Columbia

September, 2014 – May, 2019

#### *Bachelors of Applied Science*

- Geological Engineering

## AWARDS

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Chancellor's Scholar Award

2014

Special Mention in Harvard National MUN

2014

The Daily Star Award for 6+ As in O level examinations

2013

Best Delegate Award in Bangladesh National Model UN

2013

Best Delegate Award in SAIMUN in India

2013

## Activities and Interest

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- Snow Boarding
- Mountain Biking
- Swimming
- Playing Soccer
- Camping