

Zafria Khan

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Summary of Skills and Qualifications

- Over 5 years of experience performing basic research and data entries during academic projects and 8 months of specified research in structural engineering.
- 2 years of experience in creating and maintaining budgets through the use of accounting software like Quickbooks and MS Excel.
- Over 2 years of project management and prioritization skills by holding various executive positions in the Engineering Students Society and Ontario Engineering Competition 2018 organizing committee.
- Over 5 years of experience using MS Office Suite, with a focus on Word, Excel and scheduling with Project (1 year of experience).

Computer Skills

SAP 2000, Revit, ETABS, S-Frame, AutoCAD, SolidWorks, Microsoft Excel, Microsoft Project, Microsoft Powerpoint, Microsoft Word, Basic C, MATLAB, and RISA-3D

Education

University of Ottawa (January 2018 – Present)

Master of Applied Science degree in Structural Engineering

Thesis: Seismic Reinforcement of Concrete Structures using Fiber Reinforced Polymers (FRP)

University of Ottawa (September 2013 – December 2017)

New Graduate from Bachelor of Applied Science in Civil Engineering in the Structural/Geotechnical option

Relevant Coursework:

Structural Steel and Reinforced Concrete Design
Rehabilitation of Concrete structures
Earthquake Engineering

Structural Analysis
Geotechnical Engineering
Project Design in Civil Engineering

Engineering Projects

Researcher

May 2018-Present

- Joint collaboration between the University of Ottawa and GHD
- Conduct research and prepare an R&D report and guidelines for GHD for corrosion on a parking garage structure that will enable them to expand their firm to contain a structural engineering department

Research in Seismic Performance of FRP Reinforcement

January 2018-Present

- Thesis topic of Master's degree.
- Address the gaps in the use of FRP bars as seismic reinforcement through development of a finite element model of FRP-reinforced concrete frame and incorporating an accurate hysteresis behaviour of the structure.

Research in Recycled Concrete Aggregate (RCA)

May 2017-September 2017

- Assisted a graduate student in his thesis on RCA concrete under the supervision of Dr. Martin Noel.
- Performed various laboratory work with RCA and computer analysis with the results.

Structural Design of a Structural Engineering Laboratory

September 2016 – April 2017

- Designed using SAP2000, the Handbook of Steel Construction, the Concrete Handbook and the National Building Code of Canada 2015
- Selection of steel sections based on strength and ductility requirements

Work Experience**Teaching Assistant**

September 2017-Present

University of Ottawa Department of Civil Engineering

- Course CVG1507, Dessin Industriel et Seminaires en Genie Civil
- Worked in a team of two to conduct weekly laboratory sessions using AutoCAD and evaluate weekly assignments for a class of 40 students.
- Course CVG4150, Highway and Transportation Engineering
- Collaborated with a team of five to run weekly tutorials and evaluating assignments for a class of approximately 150 students

Teaching Assistant

January 2016-April 2016

University of Ottawa Department of Civil Engineering

- Course CVG2140, Mechanics of Materials I
- Collaborated with a team of four to run weekly tutorials and evaluating assignments for a class of 150 students and made myself available outside class time for questions
- Completed WHMIS and laboratory training with University of Ottawa

Surveying Field School

May 2015

University of Ottawa Department of Civil Engineering

- Performed various land surveying methods at Strathcona Park
- Differential levelling and distance measurements using angles
- Learned to use equipment individually

Leadership Experience**Vice President of Finance**

September 2016-February 2018

Ontario Engineering Competition 2018

- Review and supervise all financial matters of the competition
- Created and maintained budget through working with corporate and faculty sponsors

Senior Vice President of Operations

May 2016-October 2016

University of Ottawa Engineering Students Society

- Supervise all internal matters of the society and approve them
- Oversee day to day operations of the society
- Collaborate with faculty of engineering to provide student study space and facilities

Vice President of Financial Affairs

May 2015-April 2016

University of Ottawa Engineering Students Society

- Review all financial matters of the society
- Maintained and created budgets for academic year by writing audits and cheques
- Experience using accounting software Quickbooks