

## Farhad Habibi

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January 28<sup>th</sup>, 2019  
30 Forensic Engineering  
40 University Ave. Suite 800  
Toronto, ON, M5J 1T1, Canada

Re: Associate Civil Engineer (Structural and Building Science)

Dear Hiring Manager,

I am excited to learn about the Associate Civil Engineer position at 30 Forensic Engineering. I am confident that I will be an excellent fit for this opening as my skills are perfectly aligned with this role. I have completed both my Bachelor of Engineering and Ph.D. degrees in Structural Engineering. In addition, I am a member of Professional Engineers Ontario as an Engineer-In-Training (EIT) with four years of experience as a **Design Engineer and Project Manager** in two leading infrastructure consultant firms located in GTA. I will be eligible to obtain my Professional Engineering (P.Eng) license within 12 months of the employment.

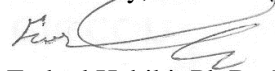
My experience in forensic engineering goes back to 2012 when I worked along side with Ministry of Labour as the lead engineer in investigation of a music festival stage collapse at Downsview Park. As part of this role, I have prepared a report outlining the origin and cause of the incident as well as a safe dismantling procedure of the remaining structure. Throughout my career, I have also conducted inspections for residential, commercial and institutional buildings, ensuring their compliance with municipal by-laws and Ontario Building Code. Further, I have continuously reinforced my technical skills by being involved in structural design of variety of residential, commercial, industrial, and low-rise buildings. As a result of these experiences, I am fully acquainted with Canadian and Ontario Building Codes as well as many other widely used codes and standards such as Canadian Concrete Code (CSA-A23.3), Canadian Steel Code (CSA-S16), American Concrete and Steel Codes (ACI and AISC).

During my graduate studies I have completed Construction Contract Document course lead by the forensic engineering and law expert, Dr. Pressnail. As part of this course, I learned about legal framework surrounding the construction documents and examined various contract documents used by government and private bodies. Taking this course has helped me gain an understanding on how to avoid construction contract problems such as payment security, bankruptcy, liens and professional liability, as well as how to efficiently resolve disputes if such arise.

My doctoral degree in Structural Engineering was focused around an extensive research program where I have assessed and determined the cause of large cracks in some of the Canadian Nuclear Containment Structures. The results of my research were acknowledged by the Canadian Nuclear Safety Commission (CNSC) and considered for the future implementation of related codes and standards concerning Nuclear Power Plant Structures. During this time, I have received several prestigious academic awards such as University of Toronto Engineering Doctoral Award and supportive funds from CNSC.

It is my strong academic and industrial background that assures me that I am an excellent fit to 30 Forensic Engineering. Indeed, my unique skills are closely aligned with the duties of the Structural and Building Science Engineer position at your firm. Copy of my resume is attached for your review and consideration. I am eagerly looking forward to the opportunity to discuss and present myself during an interview at your convenience.

Yours truly,



Farhad Habibi, Ph.D., E.I.T

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Age: 30

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## **OBJECTIVE**

Contribute to team success and enhancement of project delivery utilizing my theoretical and practical background.

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## **KEY QUALIFICATIONS**

- Advanced knowledge combined with extensive industrial experience in design, analysis and rehabilitation of diverse types of steel and concrete structures, highway bridges, nuclear structures and foundations using both Canadian and American standards such as: **CSA A23.3, CSA S16, CHBDC (CSA S6), ACI 318 and AASHTO;**
- Proficient in using common engineering software packages such as: **SAP2000, ETABS, SAFE, AutoCAD, VecTOR and ANSYS;**
- Teaching experience of several undergraduate and graduate courses in Civil Engineering at both McMaster University and University of Toronto such as: *Reinforced Concrete Structures, Mechanics of Materials, Design of High-Rise Buildings, Geotechnical Engineering, Modelling Structures using Finite Element Methods, Engineering Design and Graphics, Concrete Materials and Design, and Engineering Dynamics.*
- Team player with strong problem-solving and project management skills and ability to work under tight deadlines to deliver projects on time with attention to quality and cost
- Registered Member of Professional Engineers of Ontario as E.I.T

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## **EXPERIENCE**

Instructor, **University of Toronto**, Toronto, Canada

Sep 2018-Present

- Teaching variety of courses to second-year and third-year students at Civil Engineering Department
- Creating and running laboratory sessions
- Supervising and working with 5 Teaching Assistant to run the tutorials and labs, marking quizzes and term tests

Project Manager, **Rosette Engineering**, Toronto, Canada

Dec 2016 to Present

- Develop strong client relationships and act as the client's single point of contact throughout the project to ensure client expectations and satisfaction are met on all projects
- Provide requested quotes for engineering services based on estimated duration and scope of each project
- Provide support to structural engineers and CAD technicians to resolve technical and administrative issues
- Ensure all project are delivered within the defined scope, quality, time and cost requirements
- Provide engineering support to clients for their technical questions or field installation problems
- Engineering review of structural inspection reports and provide recommendations for engineering issues in the field

Structural Engineer, **AJW Engineering**, Mississauga, Canada

April 2012 to September 2013

- Developed detailed structural analysis and design for a variety of structural engineering projects including steel and concrete structures
- Designed and evaluated all types of residential and commercial building elements including detailing of reinforced concrete and steel connections
- Engineering review of technical calculations, structural analysis reports and engineering drawings prepared by project designers and CAD technicians prior to issuance to customer
- Prepared engineering structural inspection reports and recommendations
- Performed field inspection to ensure all work is performed in compliance with the reference drawings, project-specific standards and quality management plans

Research Assistant, **University of Toronto**, Toronto, Canada

Sep 2013- April 2019

- Carried out comprehensive analytical and experimental study upon request of Canadian Nuclear Safety Committee to assess the current condition of the nuclear structures in Canada and provide recommendations for design of future concrete nuclear structures

## **EDUCATION**

**Ph.D.**, Structural Engineering, **University of Toronto**, Toronto, Canada

2019

- *Research Project:* Evaluation of Seismic Performance of Squat Shear Walls Affected by Alkali-Silica Reaction
  - *Advisor:* Professor Shamim Sheikh
  - *Results of the research were adopted by Canadian Nuclear Safety Commission and led to several updates and modifications in design of the future nuclear structures*
  - *I have received several prestigious awards and fellowships for my academic excellence and research achievements such as **University of Toronto Doctoral Award***

**Bachelor of Civil Engineering**, **McMaster University**, Hamilton, Canada

2012

- *Graduated with honours and distinction at the top of the class with cumulative GPA of A+(4.0)*

## **COMPLETED ADVANCED LEVEL COURSES IN STRUCTURAL ENGINEERING**

- |  |   |
|--|---|
| ✓ <i>Structural Rehabilitation and Renewal</i> | ✓ <i>Dynamics of Structures</i>                           |
| ✓ <i>Inspection of Structures Using NDT</i>    | ✓ <i>Advanced Design of Concrete and Steel Structures</i> |
| ✓ <i>Finite Element Method</i>                 | ✓ <i>Earthquake Resistant Design of Structures</i>        |
| ✓ <i>Construction and Project Management</i>   | ✓ <i>Advanced Engineering Mathematics</i>                 |
| ✓ <i>Construction Contract Documents</i>       | ✓ <i>Advanced Structural Analysis</i>                     |

## **SELECTED PEER-REVIEWED TECHNICAL PUBLICATIONS**

- Habibi, F., Sheikh, S.A., Vecchio, F.J., Panesar, D., “*Effects of Alkali-Silica Reaction on Concrete Squat shear Walls*”, American Concrete Institute, **ACI Structural Journal**, V.115, 2018.
- Habibi, F., Sheikh, S.A. (2015). “*Alkali Aggregate Reaction in Nuclear Concrete Structures: Part 1: Structural Wall Element Aspects*”, SMiRT23, Manchester, U.K.