Job Posting: 24177 - Position: Structural Technical Development PEY Student

Co-op Work Term Posted:	2020-2021
Application Deadline	12/01/2019 11:59 PM
Application Method:	Online via system
Posting Goes Live:	11/13/2019 11:20 AM
Job Posting Status:	Expired

ORGANIZATION INFORMATION

Organization	RJC Engineers
Division	Human Resources
Website	rjc.ca

JOB POSTING INFORMATION

Position Type	Professional Experience Year Co-op (PEY Co-op: 12-16 months)
Job Title	Structural Technical Development PEY Student
Job Location	Toronto
Number of Positions	1
Start Date	May 04, 2020 12:00 AM
End Date	August 27, 2021 12:00 AM
Job Function	Engineering

Job Description

Specializing in structural engineering, building science, and restoration, RJC Engineers is one of North America's leading engineering firms. With a staff of more than 600 employees in twelve locations across the country, we offer highly personalized service at the local level with the expertise, depth and resources of a large, national firm.

We are proud of our ability to balance creativity with practicality to help our clients achieve their vision, and understand that creativity starts with the ingenuity of our people. We have a culture of learning and facilitating growth of skills and capabilities; of helping our people fulfill their potential through coaching, teamwork, challenging work assignments and open communications. We strongly believe that if you feel engaged and driven to excel, you will enjoy your daily work experience, and that will result in a level of service that will keep our clients coming back.

Candidate Profile:

As a member of our Structual team, the successful student will work in both a group environment as well as on an individual basis. The primary focus of this postion is working with our Technical Group in developing tools to improve our production processes. In addition to the tasks of the Technical Group,

the student will also be involved in design aspects on active projects.The student will work under the direction of the Technical Group Chair and will not only learn about engineering from a technical perspective, but will also learn business acumen, teamwork and leadership.

Key Responsibilities:

- Development of software based tools for the design and modelling of structures
- Testing and troubleshooting issues with existing software programs
- Coordination and communication with engineers and building information modellers
- Stakeholder analysis for development of software tools
- Structural analysis and design of buildings

Job Requirements

Professional Qualifications:

Education:

- Enrolled in an undergraduate Civil Engineering program in an accredited university - must have taken and passed courses in concrete design, steel design and computer science

Skills:

- Ability to think clearly in determining work required and to draw rational conclusions from information available
- Excellent written and verbal communication skills
- Excellent computer programming skills – C, VBA, Python
- Fast learner and someone who takes initiative on tasks and is self-motivated
- Ability to conceptualize structural behaviours in three dimensions and read construction drawings
- Familiar with the National and Ontario Building Codes

Please submit your resume including cover letter, references, and transcripts through the PEY Program.

We appreciate the interest and efforts of all applicants; however only those short-listed as candidates will be contacted to set up an interview.

Upon request, accommodations are available for any persons with disabilities participating in the selection process.

Preferred Disciplines Civil Engineering

APPLICATION INFORMATION

Application Receipt Procedure Online via system

ADDITIONAL INFORMATION

Length of Workterm FIXED PEY Co-op: 16 months

Maher Absar

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November 28, 2019

RJC Engineers
100 University Avenue, Suite 300
Toronto, ON M5J1V6

Dear Hiring Manager,

As an aspiring structural engineer, I want to utilize my skills and vision to contribute to infrastructure that can help build communities in positive ways. Many of RJC's projects do exactly that. The University of Toronto's innovative Centre for Engineering Innovation and Entrepreneurship is extensively benefiting the student community and will help in the education of thousands of engineers. RJC's significant structural engineering work in my hometown of Toronto has allowed me to enjoy using other facilities such as the Regent Park Community Centre, a building that has helped to bring this neighbourhood together. I hope to play a meaningful role in RJC's future work on important and sustainable developments.

I have chosen my experiences to develop a strong foundation in structural engineering. Last summer, I assisted Professor Evan Bentz's graduate students in the UofT Structural Testing Labs, where I was able to develop practical experience testing reinforced concrete beams and shell elements. I also actively looked for and engaged with opportunities to learn from and help other graduate students. I had the opportunity to assist Professor Constantin Christopoulos' graduate students and gained basic knowledge of advanced systems in earthquake engineering. This exposure transformed into a newfound passion of mine which recently landed me the role of Junior Design and Analysis Lead with the UofT Seismic Design Team, where I am using industry-standard software to model a balsa wood tower subjected to dynamic loading. In my Steel and Timber design course, I am designing a mid-rise steel structure and detailing the design of steel connections in the building. I am developing the required skills to formulate simple 3D models (using SAP2000), constructing design spreadsheets and programming in Python to find the governing load cases, according to the NBCC, to choose the most economical sections. I look forward to learning more about the structural field to one day be able to significantly contribute to complex projects similar to developments RJC has worked on such as The One and CIBC Square.

Throughout my undergraduate experience, I have also used important engineering tools such as AutoCAD, SketchUp, SolidWorks, SAP2000, MATLAB and Abaqus FEA. I understand that these skills are applicable whether the task is modelling in the early stages of projects or detailing and design in later stages. I also have a personal interest in programming which has resulted in myself performing well in courses involving Python. I continually engage in self-directed learning to improve my computer skills, such as HTML and CSS. This is indicative of my proclivity towards taking initiatives to acquire skills as required and beyond.

Through my work experience with the Toronto Police Service, I developed communication and teamwork skills by representing the Police Service while communally working in an environment comprised of seniors. Additionally, I have played a significant role in a multidisciplinary team setting while working on a design project for a course client. These experiences have allowed me to develop effective communication and project-scope management strategies for client needs.

I strongly believe that my interests and skills are tailored towards the Structural Technical Development PEY student position at RJC. Not only will my proficiency and relevant attributes be useful in executing my tasks as a PEY student, they will also provide me with a strong foundation to build upon by learning from RJC's exceptional engineers.

Thank you for your time and consideration.

Regards,

Maher Absar