Andrew W. Fisher

MASc in Civil Engineering, EIT

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Summary of Qualifications

Experienced in the design of reinforced concrete and steel structures, gained through MASc dissertation and course projects

Well-versed in engineering software including Response-2012, SAP2000, MATLAB, Excel Macros, and AutoCAD

Effective technical communication skills, including report writing and presenting, refined during roles as a Project Coordinator and Teaching Assistant

Confident in managing multiple projects; demonstrated by involvement in extra-curricular leadership roles while maintaining academic excellence

Authentic personality with a keen interest in contributing to the social environment of the office

Education

2013 - 2016 **Master of Applied Science**, Civil Engineering, University of Toronto

Dissertation: Shear Performance of Heavily Reinforced High-Strength Concrete Coupling Beams
Certificate of Accomplishment, Graduate Professional Skills Program

2008 - 2013 **Bachelor of Applied Science**, Honours Civil Engineering (Co-op) with Distinction, Management Science Option, University of Waterloo

Certificate in Structural Engineering, Department of Civil & Environmental Engineering
Certificate of Accomplishment, Student Leadership Program, Organizational & Human Development

Professional Experience

Sep 2013 - Dec 2015 **Teaching Assistant**, Structures and Materials, Department of Civil Engineering, University of Toronto

Lead weekly tutorials and laboratories with the goal of helping students make informed engineering based decisions that apply academic theory to practical design problems

Average student evaluation was 6.47, 6.65, and 6.36 out of 7 from 2013 to 2015 consecutively

May - Aug 2013 & Jan - Apr 2012 **Technical Project Coordinator**, Rowan Williams Davies & Irwin (RWDI), Guelph, ON

Planned and conducted over 45 cladding wind load and wind-induced structural load studies for buildings around the globe

Coordinated project deliverables with wind tunnel technicians and graphics modelers to meet deadlines provided by the Project Manager

Submitted technical reports to the Project Manager, summarizing cladding and structural wind loads for client use in the final design

Sep - Dec 2012 **Bridge Research Assistant**, Ministry of Transportation (MTO), St. Catharines, ON

Modelled highway bridges using S-FRAME and MIDAS software programs in order to analyze bridge responses under traffic loading

Participated in standardized load tests at bridge sites to gather real world data to verify computer models

May - Aug 2011

Municipal Engineering Assistant, SCS Consulting Group Ltd., Markham, ON

Drafted road cross-section details, traffic management plans, and stormwater management layouts using AutoCAD Land Desktop

Reviewed architectural design of housing plot plans to ensure compliance with municipal standards

Sep - Dec 2010

Engineering Project Assistant, Con Cast Pipe, Guelph, ON

Designed and configured 14,000 tonnes of precast concrete pipeline products—15% of department output—as per land development drawing specifications

Technical Projects

Sep 2013 - Feb 2016

Shear Performance of Heavily Reinforced High-Strength Concrete Coupling Beams, MASc Dissertation, University of Toronto

Designed, constructed, and tested to failure four full scale, high-strength concrete coupling beams in order to investigate how cover spalling influences shear performance

Evaluated the accuracy of the CSA and ACI code design provisions to predict the ultimate shear capacity of the coupling beams

Jan - Apr 2013

Seismic Design Proposal for a Four-Storey Steel Frame Building, Earthquake Engineering, University of Toronto

Collaborated with four teammates to complete the detailed seismic design of concentrically braced and moment resisting frames using principles of capacity design

Verified the seismic design with a response spectrum analysis and nonlinear time history analysis using SAP2000

May - Aug 2013

The Influence of Tube Transfer Functions on Wind Tunnel Test Data, RWDI, Guelph, ON

Analyzed 18 cladding wind load studies to determine the impact of using post-processing transfer functions on raw wind tunnel test data

Presented research findings and recommendation to the RWDI Project Director and Loads and Effects Group

Leadership Experience

Sep 2013 - Sep 2015

Vice-President, Civil Engineering Graduate Student Association, University of Toronto

Collaborate with six other executive to enhance the educational and social opportunities for over 300 graduate students by organizing bi-weekly socials and monthly academic presentations

Jan - Apr 2013

Editor-in-Chief, The Iron Warrior Engineering Newspaper, University of Waterloo

Recruited and managed an Editorial Board of 20 volunteers to produce five issues of the paper

Fostered an environment geared toward succession planning by pairing new and experienced volunteers, and creating a detailed transition document

Feb 2011 - Feb 2013

Finance & Sponsorship Captain, CSCE Concrete Toboggan Competition, University of Waterloo

Created a $30,000 budget by recruiting $20,000 in corporate sponsorship—the largest in team history—that achieved the goal of sending all team members to the competition at no personal cost

May 2011 - Aug 2012

Vice-President Internal, Engineering Society, University of Waterloo

Recruited over 100 Event Directors and actively mentored their planning and advertising of 60 different events