

# Shuxuan Li, MScE, EIT

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## Profile

- Master of Science in Civil Engineering with a specialty in Structural Engineering
  - Skilled user of SAP2000, ETABS, AutoCAD, ABAQUS, FEMtools, MATLAB, Microsoft Office
  - Passionate about Structural Engineering. Excellent verbal, written, graphic, and presentation skills. Positive team player with competent interpersonal skills. Detail oriented and precise
  - Engineer in Training (EIT). Student member of Canadian Society for Civil Engineering (CSCE) and American Society of Civil Engineers (ASCE)
  - Fluent in oral and written English and Mandarin
  - Willing to relocate at own expense and travel as business requires
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## Education

**Master of Science in Engineering, Civil Engineering**, University of New Brunswick (UNB), Fredericton, New Brunswick (NB) 09/2016 - 10/2018

- Research Area: Structural Damage Identification Using Vibration-Based Model Updating. Supervised by Dr. Kaveh Arjomandi
- Specialty Courses: Structural Engineering, Prestressed Concrete, Structural Dynamics, Random Vibration, Reinforced Concrete Design II, Operational Modal Analysis

**Diploma in Technology Management and Entrepreneurship**, UNB, Fredericton, NB 01/2017 - 12/2017

- Course Highlight: Managing Engineering & Information Technology Projects, Quality Management, Entrepreneurial Finance

**Bachelor of Science in Civil Engineering**, UNB, Fredericton, NB 01/2012 - 04/2016

- Specialty Courses: Structural Analysis, Structural Steel Design, Structural Wood Design, Reinforced Concrete Design
- Award: Academic Excellence Scholarship 12/2013

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## Work and Related Project Experience

**Research Assistant**, UNB, Fredericton, NB 09/2016 - 10/2018

- Designed primary structural components of a full-scale steel building with consideration of live, dead, wind and seismic load using Handbook of Steel Construction and National Building Code of Canada
- Applied pi theorem to the full-scale building based on similitude law for physical small-scale model design. Created detailed design with full sets of AutoCAD drawing, ABAQUS and SAP2000 finite element model
- Prepared material take off list and participated in the purchasing process
- Designed shake table mechanism and constructed the seven-storey aluminum small-scale building on the shake table
- Trained to use a variety of mechanical equipment for physical model construction
- Conducted vibration tests on the small-scale model and applied operational modal analysis as well as comparing experimental and finite element analysis results

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- Performed model updating technique to improve the finite element model for the use of damage detection application
- Gave presentations every two months to the research group to report progress

## **Teaching Assistant**, UNB, Fredericton, NB

01/2017 - 04/2017

- Created experimental laboratory materials for Structural Analysis Course, devised solutions for assignments and for computational laboratory tutorials
- Instructed computational laboratory for 46 students and assisted in solving tutorial questions
- Graded assignments, provided feedback to students

## **Group Leader**, UNB, Fredericton, NB

09/2016 - 12/2016

- With group, designed a three-storey reinforced concrete office building with summarized design loads and detailed design of slabs, beams, columns, and footings
- As a group leader, arranged group meetings, performed design check before the presentation

## **Senior Student Participant**, Government of New Brunswick, Oromocto, NB

09/2015 - 12/2015

- Worked with eight-member staff and student team to redesign the internal and external layout of Arc-en-Ciel Primary School using federal guidelines to solve over capacity issue
- Finalized group deliverables and prepared documents for client meetings
- Presented project and poster to up to 80 academic and government professionals at Fredericton Convention Centre

## **Intern**, Tianjin Architecture Design Institute, Tianjin, China

06/2015 - 08/2015

- Learned using ETABS for structural design and analysis
- Assisted in preparation of professional AutoCAD drawings
- Visited construction site to meet with the contractor to discuss progress with the professional engineering team

## **Vice President of External Relations**, Chinese Students and Scholars Association (CSSA), Fredericton, New Brunswick

01/2015 - 01/2016

- Organized week-long orientation for new Chinese students
- Approached various business owners and sought sponsorship for a series of events to help immigrant students adjust to Canadian life
- Managed association staff meetings and planned detailed schedule for events

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## Activities

- **Volunteer and Paper Reviewer**, CSCE 2018 Annual Conference
- **Member**, UNB Graduate Student Association Summer Softball Team
- **Participant**, New Brunswick Lung Association Bike for Breath Event
- **Champion**, CSSA Annual Karaoke Competition
- **Ice Skater, Skier, Mountain, and Road Biker**