

# POLLY B. MURRAY, EIT

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## EDUCATION

### **University of Colorado Boulder**, Boulder, CO

Structural Engineering and Structural Mechanics | GPA 3.68

Ph.D Student in Civil Engineering | 2018 – present

M.S. in Civil Engineering | December 2018

### **Tufts University**, Medford, MA

B.S. in Civil Engineering | May 2014

Howe Walker Award for leadership in ASCE Student Chapter, 2014

*Coursework* | Earthquake Engineering, Structural Dynamics, Matrix Analysis of Frame Structures, Advanced Steel Design, Advanced Concrete Design, Foundation Design, Engineering Risk and Decision Analysis, Experimental Methods in Structural Engineering, CAD for Engineers, Numerical Methods, Building Information Modeling, Adv. Mechanics of Materials

## EXPERIENCE

### **University of Colorado Boulder**, Boulder, CO

*Research Assistant* | 2017 – present

- Develop nonlinear OpenSees models to study seismic performance of ductile RC buildings
- Pair laboratory testing results and field observations with model output
- Investigate strategies to improve reparability and reduce economic losses in modern buildings

*Grader* | 2017

- Graded homework assignments and exams for undergraduate probability and statistics class

### **University of Auckland**, Auckland, NZ

*Visiting Researcher* | 2018

- Developed model to support testing of extracted subassemblies from damaged RC building

### **Earthquake Engineering Research Institute Student Leadership Council**

*Seismic Design Competition Co-chair* | 2018 – 2019

- Plan and execute the Seismic Design Competition at the EERI Annual Meeting
- Document the competition through photography and videography

*Student Activities Coordinator* | 2016 – 2017

### **C&C Consulting Engineers**, Boston, MA

*Civil Engineer* | 2014 – 2016

- Inspected bridges and prepared rating reports including calculations and drawings for MassDOT Complex Bridges
- Developed expertise in survey data collection and presentation as team member for AECOM and MBTA projects

### **Fay, Spofford & Thorndike**, Burlington, MA

*Engineering Technician* | Summer 2013

- Prepared 3D models for engineering presentations and visualization using 3DS Max
- Worked as a drafter for bridge design and other projects in AutoCAD

### **Tufts University**, Medford, MA

*Teaching Assistant* | 2012 – 2013

- Graded homework and supervised lab testing for bridge engineering course

**Tufts University ASCE Chapter**, Medford, MA

*President | 2013*

*Secretary | 2012*

*Freshman Representative | 2011*

- Created mentorship program for freshmen and sophomore engineers
- Organized annual Boston Society of Civil Engineers Section dinner
- Planned speakers and outreach events for students

**Center for Engineering Outreach and Education**, Tufts University, Medford, MA

*STOMP Fellow | 2013 – 2014*

- Developed middle school lesson plans and taught introductory programming and engineering using Lego Robotics, Mindstorms, and Scratch

## **SKILLS**

MATLAB, OpenSees, AutoCAD, Revit, SAP2000

## **PUBLICATIONS AND PRESENTATIONS**

Murray, Liel, Sarrafzadeh, Elwood. *Simulating earthquake damage and repairability of a modern reinforced concrete building*. To be presented at the 2019 Pacific Conference on Earthquake Engineering, Auckland, New Zealand. In Preparation.

Murray. *OpenSees modelling of ductile reinforced concrete building damaged in 2016 Kaikoura earthquake*. QuakeCoRE Emerging Researchers Chapter Auckland Meeting, Auckland, New Zealand, August 2018.



