

Elaine E. Shapiro

elainesh@mit.edu

(301) 807-0027

15 Hancock Street #2, Somerville, MA 02144

EDUCATION

Massachusetts Institute of Technology

Graduation: June 2012

Master of Science, Building Technology with focus in structural engineering

Virginia Polytechnic Institute and State University, 2010

Bachelor of Science, Civil and Environmental Engineering in Honors, Summa Cum Laude

Minors: Mathematics, Spanish

TECHNICAL EXPERIENCE

Massachusetts Institute of Technology

National Science Foundation Graduate Research Fellow, 2010 – Present, Cambridge, MA

- Exploring the three-dimensional collapse behavior of masonry barrel and groin vaults through scale model testing and analytical approximations
- Using high speed video footage to track collapse mechanisms of barrel and groin vault models

Virginia Polytechnic Institute and State University

Undergraduate Researcher, 2009 – 2010, Blacksburg, VA

- Created a three-dimensional analytical model of the oldest remaining metal bridge in Virginia, a wrought iron bowstring arch-truss, based on historic records and current measurements.
- Performed in situ load tests to measure the deflection of the bridge and compare to simulation

Universidad de Navarra

Horton Scholarship Finalist, Summer 2009, Pamplona, Navarra, Spain

- Designed the structure of a car dealership to compare European building codes to American

University of Notre Dame, Department of Civil Engineering and Geological Sciences

National Science Foundation Research Experience for Undergraduates, Summer 2008, Notre Dame, IN

- Project Title: “Structural Performance of School Buildings in Natural Disasters”
- Surveyed rebuilding efforts from 2004 tsunami on two-week trip to Thailand and Indonesia

Lockheed Martin, Transportation and Security Solutions

Co-op Technical Specialist, Summer 2007, Rockville, MD

- Analyzed data from official and practice runs of next generation air traffic control program

PROFESSIONAL REGISTRATION: Engineer in Training, Virginia

LEADERSHIP/HONORS

Engineering:

Outstanding Senior for the Via Department of Civil and Environmental Engineering, 2010

ASCE Virginias’ Student Conference Hardy Cross Competition, First Place, 2010

ASCE Virginias’ Student Conference Marr Technical Paper, First Place, 2010

Paul E. Torgersen Leadership Scholarship, 2009

ASCE Virginia Section Scholarship recipient, Spring 2009

American Society of Civil Engineers, Fall 2007 – Present; VT Historian, Spring 2008 – Fall 2009

Society of Women Engineers, Fall 2006 – Present; VT Financial Administrator, Fall 2009 – Spring 2010;

VT Educational Outreach Co-Chair, Fall 2007 – Spring 2009

Non-Engineering:

First Year Excellence Seminar, VT University Honors, Student Teaching Assistant, Fall 2009

Girl Scouts of the United States of America, 1995 – 2006; Gold Award, 2006

Honors Societies: Tau Beta Pi, Chi Epsilon, Phi Beta Kappa