

Emily Houston

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- Education** **MASSACHUSETTS INSTITUTE OF TECHNOLOGY** **Cambridge, MA**
Candidate for a B.S. in Mechanical Engineering, History minor, degree expected June 2010. GPA: 4.9/5.0
· Technical focus in mechanics of materials and nonlinear dynamics.
- Experience** **CENTRAL INTELLIGENCE AGENCY** **Langley, VA**
Intelligence Officer (Intern) *June 2009 to August 2009*
· Analyzed national security issues, including foreign weapons development, proliferation, and emerging technologies for CIA's Weapons Intelligence, Nonproliferation, and Arms Control Center.
· Used computational techniques in shock physics to model potential weapons threats.
· Completed full scope polygraph and obtained a Top Secret/SCI clearance.
- ELEY, LTD.** **Sutton Coldfield, Birmingham, UK**
Engineering Design Intern *June 2008 to August 2008*
· Designed a new and improved testing system to determine the quality of an internationally renowned ammunition manufacturer's top line product.
· Utilized SolidWorks and tapped into my experience as a competitive target shooter to develop complete technical drawings for the new design in nine weeks.
- UNDERGRADUATE RESEARCH OPPORTUNITIES PROGRAM** **Cambridge, MA**
Researcher in the Mechanical Engineering Department *February 2008 to present*
· Currently researching fast fracture in polymeric materials using a drop tower and Abaqus software.
· Experimentally obtaining data for use in computer simulations with material temperature dependence.
Researcher in the Political Science Department *January 2007 to August 2007*
· Explored the role of public opinion on US military policy from World War II to the War on Terror.
- TEACHING STAFF FOR COURSE 2 (Mechanical Engineering)** **Cambridge, MA**
Undergraduate Assistant: 2.002 and 2.007 *September 2008 May 2009*
· Assistant to the professors in Mechanics and Materials II and Design and Manufacturing I.
· Worked with students to help them understand concepts in materials and robotics.
- Leadership** **M.I.T. VARSITY RIFLE TEAM** **Cambridge, MA**
Captain and Team Member *2006 to present*
· Compete as "starter" on the scoring team every match for both smallbore and air rifles.
· Lead the team in practices and matches, assist in the recruitment and development of new members.
- ALPHA CHI OMEGA SORORITY** **Cambridge, MA**
Lip Sync Chair, Chapter Recruitment Information Chair, Warden *April 2007 to present*
· Held multiple chapter leadership positions, utilizing skills in conflict resolution and event planning.
- ARLINGTON OPTIMIST-ACORNS JUNIOR RIFLE CLUB** **Arlington, VA**
Captain and Team Member *1998 to 2006*
· Competed on nine national championship teams, including the first junior team to win the open category of the National Matches at Camp Perry in 2003.
· Led and coached a team of 15 shooters in local, regional, and national matches.
- Interests & Awards**
· Member of Tau Beta Pi (Engineering Honor Society) and Pi Tau Sigma (M.E. Honor Society).
· Winner of MIT's 2008 AMP, Inc. Award for outstanding performance Mechanics and Materials II.
· Current holder of 24 American National Records in smallbore and air rifles.
· Selected as the Most Valuable Player in the 2007, 2008, and 2009 rifle seasons.
· National Rifle Association's Junior Three Position Air Rifle National Champion in 2006.
- Skills**
· Solid foundation in mathematics and science, CAD drawing (SolidWorks), basic computer programming (Java and MatLab), basic machining.