SHAHED AL-HAQUE
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education

2011 – 2013 **MASSACHUSETTS INSTITUTE OF TECHNOLOGY** **CAMBRIDGE, MA**
Candidate for Master's in Technology and Policy, June 2013 *(5.0/5.0 cumulative GPA)*. Research assistant at the Lean Advancement Initiative. Relevant courses include: Systems Optimization and Analysis, Probability and Statistics, System Dynamics, Enterprise Architecting, and Modeling and Assessment for Policy.

2007 – 2011 **UNIVERSITY OF TORONTO (UOFT)** **TORONTO, ON**
Bachelor of Applied Science in Engineering Science majoring in Biomedical Engineering*, with honors (3.66/4.00 cumulative GPA)*. Awards include: University of Toronto Scholar ($5000 entrance scholarship to top 350 out of approximately 11,200 students admitted), Gordon Cressy Leadership Award, Engineering Leaders of Tomorrow Award, Engineering Science "Engineers for the World" Award, Canada Graduate Scholarship Master's Award ($17,500 awarded to top 100 health sciences Master's candidates across Canada; declined).

2003 – 2007 **AMERICAN INTERNATIONAL SCHOOL OF KUWAIT (AISK)** **KUWAIT CITY, KUWAIT**
International Baccalaureate Diploma*, with honors (44/45 diploma points)*. Awards include: Valedictorian, Kamil Al-Rayyes University Scholarship ($5000 university scholarship to highest ranked student in the graduating class), Kuwait National Petroleum Company Award for Academic Excellence.

experience

2011 – present **LEAN ADVANCEMENT INITIATIVE** **CAMBRIDGE, MA**
A unique research consortium at MIT that enables enterprises to effectively, efficiently, and reliably create value in complex and rapidly changing environments
Graduate Research Assistant
- Performed enterprise architecting analysis of the VA Boston Healthcare System Medical Service.
- Developed prototype analytics dashboard to monitor Medical Service operations performance metrics.
- Provided strategic recommendations and transformation plan for change, which led to the formation of a new business data management entity.
- Currently investigating health care delivery optimization to migratory patients in the Veterans Health Administration for Master's thesis.

2012 – present **MIT FALL 2012 CAREER FAIR** **CAMBRIDGE, MA**
The annual fall Career Fair at MIT is the largest student organized career fair in the United States. Profits from the Career Fair fund approximately 50% of student club and life activities at MIT.
Employer Relations Director, Career Fair Board of Directors
- Recruiting and managing relationship with over 360 employers that will be attending the Career Fair.
- Devising strategies to ensure a diverse array of employers attend the Fair to meet the needs of the student body and at the same time maximize profits.
- Increased sponsorship revenue by over 20% from previous years.

2011 **THE NEXT 36 ENTREPRENEURIAL LEADERSHIP INIATIVE** **TORONTO, ON**
8 month program that gives 36 undergraduate students from across Canada the academic foundation, practical skills, role models and networks to become Canada's next generation of entrepreneurial leaders
Graduate, Class of 2011
- Selected from over 1300 applicants.
- Awarded $25,000 scholarship to attend the Next 36 Entrepreneurship Institute.
- Awarded $50,000 seed capital and business mentorship from Jordan Banks (Managing Director of Facebook Canada) to start a mobile app venture called Next Mobile Inc. in an interdisciplinary team of 4 students.
- Raised $100,000 in angel investment.
- Placed 3rd and received "Innovation Award" at the Queen's Entrepreneurs' Competition, Canada's largest international undergraduate business plan competition.

Summer 2010 **HARVARD MEDICAL SCHOOL** **BOSTON, MA**
Research Assistant, Khademhosseini Lab
Developed platform to create 3D micro-patterned heart tissue constructs and techniques to assess their functional properties, a first for the lab. Applications include uses in developing patches to replace damaged heart tissue. Research led to poster presentation and co-author publication.

2010 – 2011 **UOFT INSTITUTE OF BIOMATERIALS AND BIOMEDICAL ENGINEERING** **TORONTO, ON**

Research Assistant, Radisic Lab

Investigated combined effect of substrate stiffness and topography on heart tissue. Applications include uses in developing patches to replace damaged heart tissue. Research led to first author publication.

2009 – 2011 **TETRA SOCIETY CHAPTER AT UOFT** **TORONTO, ON**

Tetra is an organization of volunteer engineering students who develop customized assistive devices for people with disabilities in the Greater Toronto Area

President and Co-Founder

Mobilized a team of 7 engineering students to develop 3 custom assistive devices. Organized Tetra Society Assistive Technology Forum (2009) with the Honorable David Onley, Lieutenant Governor of Ontario as keynote speaker, engaging 131 community members on issues related to disability and assistive technology.

2008 – 2011 **ENGINEERING LEADERS OF TOMORROW** **TORONTO, ON**

The Engineering Leaders of Tomorrow program is a unique student leadership development program for engineering students at the University of Toronto.

Senior Fellow

Interviewed Dr. James Orbinski former International President of Médecins Sans Frontières/Doctors Without Borders on leadership development. Served on Dean's Taskforce on Engineering Leadership Education, leading to the establishment of the Institute for Engineering Leadership (ILEAD) at UofT in 2010. Interviewed former Toronto Mayor David Miller on the role of engineers in public policy in 2010, reaching 247 students and faculty. Presented the Engineering Leaders of Tomorrow Program to the UofT Governing Council in 2009.

Summer 2007 **KUWAIT NATIONAL PETROLEUM COMPANY** **KUWAIT CITY, KUWAIT**

One of the largest oil refining companies in the world, KNPC aims to maximize the value of Kuwaiti hydrocarbons through domestic and international refining and marketing

Quality Control Intern, Mina Al-Ahmadi Refinery

Learned analytical chemistry techniques used in quality control of petroleum products including gas chromatography, high performance liquid chromatography, UV-Vis/X-Ray/NMR spectroscopy.

publications

S. Al-Haque, J.W. Miklas, N. Feric, L.L.Y. Chui, W.L.K. Chen, C.A. Simmons and M. Radisic. Hydrogel Substrate Stiffness and Topography Interact to Induce Contact Guidance in Cardiac Fibroblasts. Macromolecular Bioscience. 2012, DOI: 10.1002/mabi.201200042 (selected as cover article)

C.B. Hutson, J.W. Nichol, H. Aubin, H. Bae, S. Yamanlar, S. Al-Haque, S.T. Koshy, and A. Khademhosseini. Synthesis and Characterization of Tunable PEG-Gelatin Methacrylate Composite Hydrogels. Tissue Engineering Part A. 2011, 17:1713-1723.

D.A. Delaine, S.B. Seif-Naraghi, S.Al-Haque, N. Wojewoda, Y. Meninato, J. DeBoer. Student involvement as a vehicle for empowerment: a case study of the student platform for engineering education development. European Journal of Engineering Education. 2010, 35:367-378.

presentations

J.W. Nichol, H. Aubin, C.B. Hutson, H. Bae, S. Yamanlar, S. Al-Haque, S.T. Koshy and A. Khademhosseini. "Directed 3D Cell Alignment and Elongation In Microengineered Gelatin Methacrylate Hydrogels Via An MMP-dependent Mechanism." International Society for Applied Cardiovascular Biology 2010 Meeting, Boston, MA, USA (22-25 Sept. 2010) (poster)

"Engineering Leadership Education," Ontario Center for Engineering and Public Policy 2010 Public Policy Conference, Toronto, ON, Canada

"Service Learning in Engineering," 2009 Global Student Forum, Budapest, Hungary

"Engineering Leadership Education: Leaders of Tomorrow," 2009 American Society for Engineering Education Global Colloquium on Engineering Education, Budapest, Hungary

personal

Experience living and studying in Bangladesh, Kuwait, Canada and the United States of America. Fluent in English and Bengali. Basic Hindi and Urdu. Enjoy cooking, reading and playing guitar.