

# MOHAMMAD M. GHASSEMI

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## EDUCATION

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**PhD, Massachusetts Institute of Technology** *February 2012 - May 2018*

Major: Electrical Engineering and Computer Science

Minor: Institutional Communications

Advisors: Dr. Roger G Mark and Dr. Emery N Brown

Thesis: *Life After Death: Techniques for the Prognostication of Post-anoxic Coma Patients*

**MPhil, University of Cambridge UK** *October 2010 - July 2011*

Major: Information Engineering

Advisor: Prof. Daniel Wolpert

Thesis: *Shadows of the Mind: Using Discrete Decision Tasks to Infer Mental Representations*

**BSc, New Mexico State University (Highest Honors)** *August 2003 - May 2008*

Major: Electrical Engineering & Applied Mathematics

Minor: Computer Science

Advisor: Dr. Joseph R Denk

Thesis: *Jesus Existed: An Investigation into the Pauline Letters for the Historical Jesus*

## PROFESSIONAL SKILLS AND CERTIFICATIONS

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<b>Certifications</b>	Kaufman Teaching Certificate CASA Child Advocacy Certificate
<b>Technical Expertise</b>	Machine Learning, Signal Processing, Databases Web Development, Statistics, Clinical Informatics
<b>Non-Technical Expertise</b>	Grant Writing, Project Management, Innovation Fund-raising, Public-Speaking, Strategy
<b>Data Science Tools</b>	Python, MATLAB, SQL, C
<b>Web Design Tools</b>	Python, HTML5, CSS, PHP, JavaScript

## JOURNAL PAPERS

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[paper] **Dynamic EEG Signatures Predict Recovery in Hypoxic Encephalopathy**

*Annals of Neurology* (Submitted, 2017)

MM Ghassemi, E Amorim, T Alhanai, JW Lee, S Herman, A Sivaraju, N Gaspard, L Hirsch, BM Scirica, M Donnino, S Biswal, VM Junior, SS Cash, EN Brown, RG Mark, MB Westover.

[paper] **Management of Atrial Fibrillation with Rapid Ventricular Response in the Intensive Care Unit: A Secondary Analysis of Electronic Health Record Data**

*Shock* (2017)

A Moskowitz, K Chen, A Cooper, A Chahin, MM Ghassemi, LA Celi

[paper] **A Datathon Model to Support Cross-Disciplinary Collaboration**

*Science Translational Medicine* (2017)

MM Ghassemi\*, J Aboab, LA Celi, P Charlton, M Feng, DC Marshall, L Mayaud, T Naumann, N McCague, KE Paik, TJ Pollard, M Resche-Rigon, JD Saliccioli, DJ Stone

[paper] **MIMIC-III, A Freely Accessible Critical Care Database**

*Nature Scientific Data* (2016)

T Pollard, A Johnson, L Shen, L Lehman, M Feng, MM Ghassemi, B Moody, P Szolovits, LA Celi, RG Mark

[paper] **Machine Learning and Decision Support in Critical Care**

*Proceedings of the IEEE* (2016).

AEW Johnson, MM Ghassemi, S Nemati, KE Niehaus, D Clifton, GD Clifford.

\*Invited Paper

[paper] **A Data-Driven Approach to Optimized Medication Dosing: A Focus on Heparin**

*Intensive Care Medicine* (2014)

MM Ghassemi, SE Richter, IM Eche, TW Chen, J Danziger, LA Celi

[paper] **Nocturnal pulsatile LH Secretion is Preserved Even During Fragmented Deep Sleep in Pubertal Children**

*Journal of Clinical Endocrinology & Metabolism* (2014)

ND Shaw, JP Bulter, S Nemati, T Kangarloo, MM Ghassemi, A Malhotra, JE Hall

[paper] **Cognitive Tomography Reveals Complex Task-independent Mental Representations**

*Current Biology* (2013)

NMT Houlsby, F Huszar, MM Ghassemi, G Orban, DM Wolpert, M Lengyel

[paper] **An ICA with Reference Approach in Identification of Genetic Variation and Associated Brain Networks**

*Frontiers of Human Neuroscience* (2012)

J Liu, MM Ghassemi, AM Michael, D Boutte, W Wells, N Perrone-Bizzozero, F Macciardi, DH Mathalon, JM Ford, SG Potkin, JA Turner, VD Calhoun

## CONFERENCE PAPERS

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[paper] **Spotting Survivors: A Method to Predict the Fate of Startup Ventures**

*International Conference on Knowledge Discovery and Data Mining* (Submitted, 2018)

MM Ghassemi, T Alhanai

[paper] **A Deep Deterministic Policy Gradient Approach to Medication Dosing and Surveillance in the ICU**

*IEEE Engineering in Medicine and Biology Society* (2018)

R Lin\*, MM Ghassemi, S Nemati

[paper] **How is the Doctor Feeling? ICU Provider Sentiment is Associated with Diagnostic Imaging Utilization.**

*IEEE Engineering in Medicine and Biology Society* (2018)

MM Ghassemi, T Alhanai, J Raza, RG Mark, S Nemati, FH Chokshi

[paper] **Personalized Medication Dosing Using Volatile Data Streams**

*Association for the Advancement of Artificial Intelligence* (2018)

MM Ghassemi, T Alhanai, MB Westover, RG Mark, S Nemati

[paper] **An Open-Source Tool For The Automated Transcription of Paper-Spreadsheet Data**

*IEEE International Conference on Big Data* (2017)

MM Ghassemi, W Jarvis, T Alhanai, RG Mark, EN Brown, MB Westover

[paper] **Predicting Latent Narrative Mood using Audio and Physiologic Data**

*Association for the Advancement of Artificial Intelligence* (2017).

MM Ghassemi, T Al-Hanai.

[paper] **The Effects of Deep Network Topology on Mortality Prediction**

*IEEE Engineering in Medicine and Biology Society* (2016).

D Hao, MM Ghassemi M Feng

[paper] **Optimal Medication Dosing from Suboptimal Clinical Examples: A Deep Reinforcement Learning Approach**

*Engineering in Medicine and Biology Society* (2016)

S Nemati, [MM Ghassemi](#), GD Clifford

[paper] **Monitoring and Detecting Atrial Fibrillation using Wearable Technology**

*Engineering in Medicine and Biology Society* (2016).

S Nemati, [MM Ghassemi](#), V Ambai, N Isakadze, O Levantsevych, A Shah, and GD Clifford

[paper] **Newsworthy Rumor Events: A Case Study of Twitter**

*International Conference on Data Mining: Workshop on Event Analytics* (2015)

A Nourbakhsh, X Liu, S Shah, R Fang, [MM Ghassemi](#), Quanzhi Li

[paper] **A Visualization of Evolving Clinical Sentiment Using Vector Representations of Clinical Notes**

*Conference on Computing in Cardiology* (2015)

[MM Ghassemi](#), RG Mark, S Nemati

[paper] **Patient Prognosis from Vital Sign Time Series: Combining Convolutional Neural Networks with a Dynamical Systems Approach**

*Conference on Computing in Cardiology* (2015)

L Lehman, [MM Ghassemi](#), S Nemati

[paper] **An Enhanced Cerebral Recovery Index**

*IEEE Engineering in Medicine and Biology Conference* (2015)

[MM Ghassemi](#), E Amorim, RG Mark, EN Brown, MB Westover

[paper] **A Fast and Memory-Efficient Algorithm for Learning and Retrieval of Phenotypic Dynamics in Multivariate Cohort Time Series**

*IEEE International Conference on Big Data: Workshop on Big Data in Bioinformatics* (2014)

S Nemati, [MM Ghassemi](#)

[paper] **Management and analytic of biomedical big data with cloud-based in-memory database and dynamic querying: a hands-on experience with real-world data**

*Knowledge Discovery and Data Mining Conference* (2014)

M Feng, [MM Ghassemi](#), T Brennan, J Ellenberger, I Hussain, RG Mark

[paper] **Global Optimization Approaches for Parameter Tuning in Biomedical Signal Processing: A Focus of Multi-scale Entropy**

*Computing in Cardiology Conference* (2014)

[MM Ghassemi](#), L Lehman, J Snoek, S Nemati

## BOOKS AND BOOK CHAPTERS

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[chapter] **Communication Networks and Global Health**

Global Health Informatics Book

MIT Press (2017)

M Feng, [MM Ghassemi](#)

[book] **Secondary Analysis of Electronic Medical Records**

Springer (2016)

LA Celi, P Charlton, [MM Ghassemi](#), AEW Johnson, M Komorowski, D Marshall, T Naumann, K Paik, TJ Pollard, J Raza, J Saliccioli

[chapter] **Hyperparameter Selection**

Secondary Analysis of Electronic Medical Records

Springer (2016)

F Dernoncourt, S Nemati, EB Kassis, [MM Ghassemi](#)

[chapter] **Big Data and Optimization of Treatment Strategies**

Machine Learning for Healthcare Technologies

Springer (2016)

S Nemati, MM Ghassemi

**SHORT PAPERS AND ABSTRACTS**

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[poster] **Dynamic EEG Features in Neurologic Prognosis of Coma Following Cardiac Arrest**

*American Clinical Neurophysiology Society* (2017)

MM Ghassemi, E Amorim, JW Lee, M van Putten, J Hofmeijer, A Sivaraaju, N Gaspard, B Ruijter, S Herman, S Biswal, V Junior, MB Westover

[poster] **Dynamic Quantitative EEG Signatures Predict Outcome in Cardiac Arrest**

*Neurocritical Care Society* (2016)

MM Ghassemi, E Amorim, JW Lee, MB Westover.

\*Recipient of Best Poster Award

[paper] **Neurological Severity of Illness Is Associated with Increased Resource Utilization**

*International Symposium on Intracranial Pressure and Neuromonitoring* (2016)

MM Ghassemi, S Nemati, MB Westover

[paper] **A Cascaded Regression Approach For Precision Medication Dosing**

*IEEE Strategic Conference on Healthcare Innovations and Point of Care Technologies for Precision Medicine* (2015)

MM Ghassemi and S Nemati

[paper] **Hierarchical Event Detection via Hidden Markov Modeling**

*NIH-NBIB Trainee Conference* (2014)

MM Ghassemi, EN Brown

**INVITED TALKS**

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**University of Tennessee at Knoxville**

*Invited Speaker*

March 2018

*Knoxville, TN*

Presented “Know thyself: How data science and machine learning can help us better understand and improve our personal lives.”.

**TEDx Beacon Street**

*Invited Speaker*

November 2017

*Somerville, MA*

Presented “How to find the most interesting person you’ve never met”.

**Institute for Medical Science and Engineering, Research Progress Meeting** October 2017

*Invited Speaker*

*Cambridge, MA*

Presented “Techniques the the Prognostication of Coma Following Cardiac Arrest”.

**International Conference on Extreme Learning Machines**

*Keynote Speaker*

October 2017

*Yantai, China*

Presented “Time Sensitive Modeling For Better Clinical Prognostication”.

**Samsung Strategy and Innovation Center**

*Invited Speaker*

February 2017

*San Jose, CA*

Presented “Detecting latent narrative mood using audio and physiologic data”.

## CONFERENCE/CHALLENGE ORGANIZATION

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**Physionet Challenge** 2018  
*Organizing Committee Member* Cambridge, MA

Organized a data science challenge for the detection of sleep arousals. More information [here](#).

**Critical Data Conference and Workshop** January 2014  
*Organizing Committee Member* Cambridge, MA

Assisted in the collection of over \$40,000 in sponsorship funding for the event. Encouraged attendance from over 300 medical and engineering researchers across 12 countries. Arranged prominent speakers including the editor and chief of the New England Journal of Medicine.

**Computing in Cardiology Conference** September 2014  
*Organizing Committee Member* Boston, MA

Reserved venue, organized activities and scientific sessions.

## PATENTS

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**Methods And Systems For Determining People You Should Know and Autonomous Social Coaching** April 2017  
*US Provisional Patent* Pending

The invention provides users with suggestions on other users that they should meet, who they would not have been likely to meet without such a suggestion, and provides data-driven social coaching through an AI agent.

**Adjustable Solar Cell Network** August 2010  
*US Patent 20100193055* Visible Light Solar Technologies

Describes a controllable voltage and current module that allows for up to 20% more effective capture of photovoltaic energy.

**Modular Solar Device Power Distribution** February 2010  
*US Patent 20100033019* Visible Light Solar Technologies

Describes a unique, highly efficient engineering architecture for interface between a wide range of photovoltaic energy sources, battery technologies, and applications.

## WORK EXPERIENCE

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**The Ghamut Corporation** October 2016 - Present  
*Founder* Cambridge, MA

AI-driven technologies for community organization. The company was a winner 2017 [Mass-Challenge](#).

**Allstate** May 2017 - July 2017  
*Consultant* New York, NY

Provided strategic expertise in data management, analysis, and visualization.

**Estée Lauder Company** September 2016 - Present  
*Consultant* New York, NY

Provide strategic expertise in data management, analysis, and visualization.

**HappiTech** April 2014 - July 2015  
*Algorithms Developer* Amsterdam, Netherlands  
Developed algorithm for estimation of heart rate from cell phone camera.  
See: <http://skipabeatgame.com/>

**Mind Research Network** April 2010 - April 2011  
*Research Consultant* Albuquerque, New Mexico  
Investigated functional brain networks in the context on psychiatric illness.

**Thomson Reuters** May 2015 - August 2015  
*Technology Summer Associate* New York, NY  
Investigated the use of social media data to predict rumors, and detect rare events. Utilized LSTM neural networks to infer the topical content and sentiment of social media activity.

**The Boston Consulting Group** October 2011 - January 2012  
*Associate* Dubai, UAE  
Provided evidence-based strategies to public and private sector executives in the Middle East.

**Visible Light Solar Technologies** May 2008 - March 2010  
*Engineering Lead* Albuquerque, NM  
Lead the development effort of dynamic, intelligent solar powered electrical applications. Designed and implemented software to control LED lighting applications. Designed Hardware for LED lighting applications. Performed research on affordable and novel solar cell lamination techniques as well as viability of indoor photovoltaic applications.

**New Mexico State University** January 2008 - May 2008  
*Scientific Specialist* Las Cruces. NM  
Developed a software package using LabVIEW to more effectively run, and interpret data from, an Ion Mobility Spectrometer.

**Agilent Technologies** May 2007 - August 2007  
*Intern* Pleasanton, CA  
Designed and contributed toward the implementation of a driver for Agilents 35900E analog-to-digital converter.

**Agilent Technologies** May 2006 - August 2006  
*Intern* Santa Clara, CA  
Investigated, improved and redesigned components of Agilents Mass Spectrometer line. Increased the speed of the device by approximately 1000 times after introducing redesigned components to the device. The redesigned components are currently being developed into a new product.

**IBM Corporation** May 2005 - August 2005  
*Intern* Tucson, AZ  
Improved security of the 3584 Automated Tape Library by designing a specialized security interface for the library operator panel.

**New Mexico State University** August 2003 - May 2005  
*Research Assistant* Las Cruces, NM

Assisted in the creation of artificially intelligent power systems using LabVIEW. The program predicted faults in a power system and prevented them by invoking the assistance of other power systems in the power grid. Developed an interface that allowed users to monitor and control the power system with relative ease. Assisted in design and creation of specialized circuit boards to be used in the lab.

## SCHOLARSHIPS, FELLOWSHIPS AND GRANTS

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**National Research Service Award (T32HL007901)** January 2017  
*Worth \$65,000* *National Heart, Lung, and Blood Institute*

Awarded for academic excellence.

**MIT Sandbox Grant** October 2016, April 2017  
*Worth \$20,000* *MIT Sandbox Initiative*

Awarded to facilitate continued development of a platonic match-making software platform.

**MIT Graduate Student Life Grant** Spring 2015-Present  
*Worth \$16,000* *MIT Office of the Dean of Graduate Education*

Awarded to facilitate continued development of a platonic match-making software platform.

**MIT MHH Grant** Summer 2016  
*Worth \$5,000* *MIT Mind Hand Heart*

Awarded to facilitate continued development of a platonic match-making software platform.

**Emory HIP-ACTSI Grant** July 2016  
*Worth \$25,000* *Emory HIP-ACTSI*

Awarded to investigate "Intensive Care Unit Provider Sentiment and Diagnostic Imaging Utilization".

**AWS Research Education Grant** May 2015  
*Worth \$8,000* *Amazon Corporation*

Awarded to support the distribution of a large, publicly accessible clinical data archive.

**Advanced Multimodal Neuroimaging Training Program (T90DA22759)** April 2014  
*Worth \$75,000* *Massachusetts General Hospital*

Awarded to support advanced research activities on Prognostication of Neurological Outcomes Following Cardiac Arrest.

**Henry Luce Fellowship** February 2014  
*Worth \$40,000* *Luce Foundation*

Successful candidates have a record of high achievement, outstanding leadership ability, and clearly defined interests. Provides stipends, language training, and individualized professional placement in Asia for 15-18 Scholars each year.

**The Heinz Award** December 2013  
*Nominee* *Heinz Family Foundation*

Individual achievement award given annually to recognize outstanding individuals for innovative contributions.

**NIH Neuroimaging Training Program (T32EB001680)***Worth \$75,000*

September 2013

*National Institute of Health*

To enable the development of novel, interdisciplinary research involving neuroimaging techniques.

**Salerno Foundation Fellowship***Worth \$225,000*

June 2012

*Salerno Foundation*

Awarded to student with graduate research applicable to critical care medicine.

**Gates Cambridge Scholarship***Worth \$60,000*

February 2010

*Gates-Cambridge Trust*

A highly prestigious full scholarship for study at the University of Cambridge (UK) Granted on the basis of intellectual ability, leadership capacity and desire to use knowledge to contribute to society throughout the world. One of only 29 people in the United States to receive the distinction in 2010.

**Goldwater Scholarship***Worth \$8,000*

February 2010

*The Barry Goldwater Scholarship and Excellence in Education Program*

The Goldwater Scholarship is considered the most prestigious undergraduate award of its kind in Engineering, Math and Science.

**Other Scholarships***Total worth \$25,000*

2003 - 2008

*New Mexico State University*

NMSU Alumni Association Scholarship  
 Professor Harold Brown Scholarship  
 Phelps Dodge Corporation Scholarship  
 Pioneer Bank Scholarship  
 International Test and Evaluation Scholarship  
 Bryant E. Pedrick Memorial Scholarship  
 Engineering College Scholarship

**HONORS, AWARDS AND DISTINCTIONS****MassChallenge Boston***Winner*

2017

The distinction is awarded to the top 1.5% of competitors.

**Bell-Labs Innovation Prize***Finalist*

2015

Selected for work on an invention that accomplished three high level objectives: patient monitoring, automated assessment of data, and the provision of actionable feedback.

**Verizon Powerful Answers Award***Semi Finalist*

2015

Selected for work on a wearable, social coaching algorithm.

**MIT T=0 Hackathon***Winner*

September 2013

*Cambridge, MA*

Awarded first place in the competition for developing a low-cost bicycle battery charger for deployment in the third world.



**MIT Global Fellows Program***Global Fellow*April 2013  
Cambridge, MA

Selected PhD students develop professional skills required to launch and manage a successful international research career.

**Outstanding Graduating Engineer***New Mexico State University*

May 2008

The highest academic distinction provided to the top graduating engineer each year.

**Four Corners Embrace Award***American Petroleum Institute*

April 2007

Award for excellent presentation and research ability regarding the future of fossil fuels, and sustainable energy.

**C.A.R.E. Award***Citizens Alliance for Responsible Energy*

2007

For research and presentation regarding the current state of global and national energy production and its relationship to the environment and poverty. Presented pragmatic solutions to scientists and policy makers in New Mexico for developing non-fossil fuel energy sources.

**The President's Volunteer Service Award (National)***The White House*

2005

Recognized for participating in over 400 hours of community service.

**Deans Honor List***New Mexico State University*

2004 - 2008

Placed in top 15% of student body.

**SELECTED MEDIA MENTIONS**

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**An AI to Sense the Unspoken (2017)**[MIT News](#), [WSJ](#), [Motherboard](#), [Engadget](#), [Wired](#), [Forbes](#)**There is Such a Thing as a Free Lunch (2016)**[MIT News](#), [World Economic Forum](#), [Boston Globe](#)**Gates-Cambridge Scholarship (2010-2016)**[Gates-Cambridge Trust News](#), [NMSU News Center](#)**Coma Prognostication (2016)**[ET Council](#)**Biofeedback Game (2015)**[Business Insider](#)**TEACHING EXPERIENCE**

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**Secondary Analysis of Health Records (HST.953)***Instructor*Fall, 2016  
*Massachusetts Institute of Technology*

Designed a session on predictive modeling, and assessment techniques.

**Machine Learning in Critical Care***Instructor*Winter, 2015  
*Massachusetts Institute of Technology*

Designed a four session course on machine learning in critical care teaching students how to: Formulate a research question, Preprocess clinical data, Apply machine learning algorithms and interpret results.

**Quantitative Systems Physiology (6.022j)**

February 2012 - May 2012

*Teaching Assistant*

*Massachusetts Institute of Technology*

Prepared exams, homework assignments and tutored students in MIT's Quantitative Systems Physiology class (6.022j). Supported physiological laboratories, which required dissection of specimens including rabbits, frogs and cow hearts.

**STUDENTS SUPERVISED**

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**Willow Jarvis**

Undergraduate, MIT

*August 2014 - August 2015*

Automated extraction of data from clinical flow-sheets.

**Sahar Al-Khairiy**

Undergraduate, MIT

*June 2014 - Dec 2015*

Developing a data driven definition of Acute Kidney Injury.

**Erin Schnellinger**

Graduate, University of Rochester

*June 2014 - Dec 2015*

Investigation of pulmonary fibrosis using large clinical database.

**Joe Rowley**

Undergraduate, University of California at Santa Cruise

*August 2014 - July 2015*

Design of user interface for optimal medication dosing.

**Paris Marsh**

Undergraduate, Tulane University

*Summer 2014*

Transcription of medical records.

**Kyle Valley**

Intern, VLST

*Summer 2010*

Fabrication of photo-voltaic arrays.

**SOCIETIES**

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**Buisness Talent Group**

2013 - Present

*Member*

Connects top-tier independent consultants to industry leaders for short-term engagements.

**Graduate Student Council**

2015 - 2016

*Massachusetts Institute of Technology*

Served as co-chair of Academics, Research and Careers Committee managing \$67,000 in resources. Served as Student member of the Committee for Graduate Admissions. Organized multiple workshops and panel discussions on how to perform the academic search, secure a high-impact post-doctoral position, write a doctoral thesis, and communicate effectively.

**Joournal of The American Medical Informatics Society**

2015-2016

*Massachusetts Institute of Technology*

Served as a technical reviewer for Journal articles.

**The Society of Refined Scientists**

2013 - Present

*Massachusetts Institute of Technology*

The society was founded to help create more well-rounded scientists which can confidently present themselves, and their ideas to diverse audiences. Produced, directed, filmed and edited a documentary on the work of Nobel Prize winner Dr. Robert Horwitz which premiered at MIT. Founded, and played a central role in earning fully funded status for the organization. Collected approximately \$20,000 in funding and donations for student events and activities.

**MIT Energy Club**

July 2012 - July 2013

*Massachusetts Institute of Technology*

Served as Entrepreneurial Chair. Coordinated monthly events and activities to increase interest in entrepreneurial activities on Campus and connect student innovators to venture capitalists. Organized the Boston Cleanweb Hackathon and Data Jam, A two-track prize competition to demonstrate the impact of applying information technologies to energy and resource constraints, known as the cleanweb. Entrepreneurs, developers, designers, and business professionals create web and mobile IT applications to solve some of our biggest energy and sustainability problems. Helped attract 13 event sponsors, and attain the official support of the White House Office of Science and Technology.

**Model United Nations**

2005 - 2006

*New Mexico State University*

Awarded the title of Distinguished Delegation (2nd place of approximately 250).

**NMSU Engineering Council**

2004 - 2005

*New Mexico State University*

Served as Vice President of External Affairs. Responsible for the allocation of funds to various student groups on Campus. Recipient of the 2004 NMSU Engineering Council Outstanding Officer Award. Recipient of the 2004 NAESC National Philanthropy Award for outstanding. Recipient of the 2004 NAESC Nationally Most Improved Engineering Council

**PUBLIC SERVICE ACTIVITIES**

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**MIT Connect Program**

Jan 2015 - Present

*Founder*

*Cambridge, MA*

MIT Connect is a program that pairs random students on the MIT Campus for lunches with the aim of building a stronger community. The Program has received over \$50,000 in funding via the MIT Graduate Student Life Grant, De Florez Humor Grant and The Mind Hard and Heart Initiative.

**Save Yemen Fundraiser**

Fall 2016

*Organizer*

*Cambridge, MA*

Organized a fundraiser lunch for Doctors without Borders (\$2,500 collected) for civilians in worn-torn Yemen.

**Sana Engineering Workshop**

July 2013 - July 2014

*Workshop Instructor*

*Vellore, India*

Guided undergraduate students through workshop on health-care informatics.

**Innovators In Health** July 2013 - July 2014  
*Consulting Engineer* Cambridge, MA  
Organization aims to facilitate treatment of widespread infectious disease afflicting. Current focus on the treatment of Tuberculosis patients in rural India.

**Science Fair Mentorship Program** July 2012 - July 2013  
*Co-founder* Boston, MA  
Worked with underprivileged children in the Boston area to inspire an interest in science and engineering through science fair mentorship.

**Cambridge iTeams** October - December 2010  
*Market Penetration Lead* Cambridge, MA  
Developed Market penetration strategies for markerless motion capture software package being developed at the university.

**The Court Appointed Special Advocate Program** January 2009 - August 2009  
*Child Representative* Albuquerque, NM  
Certified legal advocate for abused and neglected children. Investigated child abuse and neglect cases and provided recommendations to judge.

**Albuquerque Food Bank** 2009  
*Donation Drive Organizer* Albuquerque, NM  
Organized a food drive and collected over 500 lbs of rice for needy New Mexicans.

**Jardin de los Ninos** 2004 - 2007  
*Mentor* Las Cruces, NM  
Served as mentor for homeless and underprivileged children. Collected and donated over one hundred cassette tapes for children.

## REFERENCES

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**Roger G. Mark** Professor  
*rgmark@mit.edu* Massachusetts Institute of Technology

**Emery N. Brown** Professor  
*enb@neurostat.mit.edu* Massachusetts Institute of Technology

**M. Brandon Westover** PhD, MD  
*mbwestover@mgh.harvard.edu* Massachusetts General Hospital

**Gari Clifford** Professor  
*gari.clifford@bme.gatech.edu* Georgia Institute of Technology

**Shamim Nemati** Professor  
*shamim.nemati@emory.edu* Emory University