MOHAMMAD M GHASSEMI, PH.D.

Website ◇ ghassemi@alum.mit.edu ◇ GitHub ◇ YouTube ◇ LinkedIn

EDUCATION

PhD, Massachusetts Institute of Technology *February 2012 - May 2018*
Major: Electrical Engineering and Computer Science
[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
[Thesis]: *Shadows of the Mind: Using Discrete Decision Tasks to Infer Mental Representations*

BSc, New Mexico State University *August 2003 - May 2008*
Major: Electrical Engineering & Applied Mathematics
Distinctions: Outstanding Engineer
[Thesis]: *Jesus Existed: An Investigation into the Pauline Letters for the Historical Jesus*

SKILLS AND CERTIFICATIONS

Certifications	Kaufman Teaching Certificate Cognitive Ability Test Results
Technical Expertise	Artificial Intelligence, Machine Learning, Signal Processing, Databases, Web Development, Statistics, Clinical Informatics
Non-Technical Expertise	Grant Writing, Project Management, Innovation, Fund-raising, Public-Speaking, Strategy

SCHOLARLY APPOINTMENTS

Michigan State University, College of Engineering Nov. 2018 - Present
Assistant Professor, Computer Science and Engineering *East Lansing, MI*

The *Human Augmentation and Artificial Intelligence Laboratory*, performs research to enable robust machine learning in circumstances where: (1) data are limited, (2) data are noisy, and (3) humans are actively involved in sensitive decision-making procedures.

Michigan State University, College of Medicine Dec. 2024 - Present
Adjunct Assistant Professor of Medicine, Division of Health Data Science *East Lansing, MI*

Leverage expertise in artificial intelligence and machine learning for advancing biomedical research and healthcare delivery.

National Institutes of Health January 2021 - Dec. 2021
National Service Scholar *Bethesda, MD*

Selected by the NIH's Office for Data Science Strategy (ODSS) as one of nine Data and Technology Advancement (DATA) National Service Scholars. I lead a team that spans 10 NIH institutes to Expand Theories of Brain Circuits Using Knowledge Integration.

Massachusetts Institute of Technology July 2018 - December 2021
Affiliate, Institute for Medical Engineering and Science *Cambridge, MA*

JOURNAL PAPERS

28 PUBLISHED:

[28] **Probabilistic Nested Model Selection in Pharmacokinetic Analysis of DCE-MR Data in Animal Model of Cerebral Tumor**
Nature - Scientific Reports(2024)
H Bagher-Ebadian, SL Brown, MM Ghassemi, P Acharya, IJ Chetty, B Movsas, JR Ewing, K Thind

[27] **Using a Data-Driven Approach to Define Post-COVID Conditions in US Electronic Health Record Data**
Proceedings of the Library of Science (PLOS ONE) (2024)
K Andersen, FL Khan, PW Park, TL Wiemken, B Emir, D Malhotra, T Alhanai, Mohammad M. Ghassemi, LJ McGrath

[26] **A Novel Localized Student-Teacher LLM for Enhanced Toxicity Extraction in Radiation Oncology**
International Journal of Radiation Oncology, Biology, Physics (2024)
R. Khanmohammadi, A. I. Ghanem, K. Verdecchia, R. Hall, M. A. Elshaikh, B. Movsas, H. Bagher-Ebadian, I. J. Chetty, M. M. Ghassemi, K. Thind

[25] **Investigating the Temporal Association of Biomedical Research on Small Business Funding: A Bibliometric and Data Analytic Approach**
IEEE Transactions on Computational Social Systems (2024)
R. Khanmohammadi, S. Kaur, C. H. Smiley, T. Alhanai, I. Brugere, A. Nourbakhsh, M. M. Ghassemi

[24] **MambaNet: A Hybrid Neural Network for Predicting the NBA Playoffs**
SN Computer Science (2024)
R Khan, T Alhanai, MM Ghassemi

[23] **Plant Science Knowledge Graph Corpus: A Gold Standard Entity and Relation Corpus for the Molecular Plant Sciences**
in silico Plants (2024)
S Lotreck, KS Abá, MD Lehti-Shiu, A Seeger, BNI Brown, T Ranaweera, A Schumacher, MM Ghassemi, S-H Shiu

[22] **The International Cardiac Arrest Research (I-CARE) Consortium Database**
Critical Care Medicine (2023)
E Amorim, WL Zheng, Mohammad M. Ghassemi, M Aghaeeaval, P Kahndare, V Karukonda, JW Lee, ST Herman, A Sivaraju, N Gaspard, J Hofmeijer, MJAM van Putten, MA Reyna, GD Clifford, MB Westover

[21] **Dynamic contrast enhanced (DCE) MRI estimation of vascular parameters using knowledge-based adaptive models.**
Nature, Scientific Reports (2023)
Bagher-Ebadian H, Brown SL, Ghassemi MM, Nagaraja TN, Valadie OG, Acharya PC, Cabral G, Divine G, Knight RA, Lee IY, Xu JH, Movsas B, Chetty IJ, Ewing JR

[20] **Radiomics Characterization of Tissues in an Animal Brain Tumor Model Imaged Using Dynamic Contrast Enhanced (DCE) MRI.**
Nature, Scientific Reports (2023)
Bagher-Ebadian H, Brown SL, Ghassemi MM, Nagaraja TN, Movsas B, Ewing JR, and Chetty IJ, Ewing JR

[19] **Neurophysiology State Dynamics Underlying Acute Neurological Recovery After Cardiac Arrest** *Neurology* (2023) E Amorim, We Zheng, J Jing, MM Ghassemi, JW Lee, O Wu, S Herman,

T Pang, A Sivaraju, N Gaspard, LJ Hirsch, BJ Ruijter, MC Tjepkema-Cloostermans, J Hofmeijer, M van Putten, and MB Westover

[18] **Nightly Automobile Claims Prediction from Telematics-Derived Features: A Multilevel Approach**
Risks (2022)
A Williams, Y Jin, T Alhanai, MM Ghassemi

[17] **Real-Time Extended Psychophysiological Analysis of Financial Risk Processing**
PLoS One (2022)
M Singh, Q Xu, SJ Wang, T Hong, MM Ghassemi, AW Lo

[16] **Predicting Neurological Outcome from Electroencephalogram Dynamics in Comatose Patients after Cardiac Arrest with Deep Learning**
IEEE Transactions of Biomedical Engineering (2021)
W Zheng, E Amorim, J Jing, W Ge, S Hong, O Wu, M Ghassemi, JW Lee, A Sivaraju, T Pang, ST Herman, N Gaspard, BJ Ruijter, J Sun, MC Tjepkema-Cloostermans, J Hofmeijer, MJ van Putten, MB Westover, MD, PhD

[15] **Predicting Neurological Outcome in Comatose Patients after Cardiac Arrest with Multiscale Deep Neural Networks**
Resuscitation (2021)
W Zheng, E Amorim, J Jing, W Ge, S Hong, O Wu, M Ghassemi, JW Lee, A Sivaraju, T Pang, ST Herman, N Gaspard, BJ Ruijter, J Sun, MC Tjepkema-Cloostermans, J Hofmeijer, MJ van Putten, MB Westover, MD, PhD

[14] **Patient-Specific Sedation Management via Deep Reinforcement Learning**
Frontiers in Digital Health (2021)
N Eghbali, T Alhanai, MM Ghassemi

[13] **Unsupervised EEG Artifact Detection and Correction**
Frontiers in Digital Health (2021)
S. Sadiya, T. Alhanai, T Liu, MM Ghassemi

[12] **Two-step Imputation and AdaBoost based Classification for Early Prediction of Sepsis on Imbalanced Clinical Data**
Critical Care Medicine (2020)
A Baniasadi, S Rezaeerad, H Zare, MM Ghassemi

[11] **Cost-effectiveness analysis of multimodal prognostication in cardiac arrest with EEG monitoring**
Neurology (2020)
E Amorim, SS Mo, S Palacios, MM Ghassemi, W Weng, JW Lee, SS Cash, MT Bianchi, MB Westover

[10] **Quantitative EEG Trends Predict Recovery in Hypoxic-Ischemic Encephalopathy**
Critical Care Medicine (2019)
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

[9] **Estimating the False Positive Rate of Absent Somatosensory Evoked Potentials in Cardiac Arrest Prognostication**
Critical Care Medicine (2018)
E Amorim, MM Ghassemi, JW Lee, DM Greer, PW Kaplan, AJ Cole, SS Cash, MT Bianchi, MB Westover

[8] **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

[7] **A Datathon Model to Support Cross-Disciplinary Collaboration**
Science Translational Medicine (2016)
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 Salciccioli, DJ Stone

[6] **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

[5] **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.

[4] **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

[3] **Accumulated Deep Sleep is a Powerful Predictor of LH Pulse Onset in Pubertal Children**
Journal of Clinical Endocrinology & Metabolism (2014)
ND Shaw, JP Bulter, S Nemati, T Kangarloo, MM Ghassemi, A Malhotra, JE Hall

[2] **Cognitive Tomography Reveals Complex Task-independent Mental Representations**
Current Biology (2013)
NMT Houlsby, F Huszar, MM Ghassemi, G Orban, DM Wolpert, M Lengyel

[1] **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

45 PUBLISHED:

[45] **Bridging the Gap: Enhancing LLM Performance for Low-Resource African Languages with New Benchmarks, Fine-Tuning, and Cultural Adjustments**
AAAI (2025)
T Alhanai, A Kasumovic, MM Ghassemi, A Zitzelberger, J Lundin, G Chabot-Couture

[44] **Distribution-Free Uncertainty Quantification in Mechanical Ventilation Treatment: A Conformal Deep Q-Learning Framework**
AAAI (2025)
N Eghbali, T Alhanai, MM Ghassemi
[Code]

[43] **GLoG-CSUnet: Enhancing Vision Transformers with Adaptable Radiomic Features for Medical Image Segmentation**
IEEE International Conference on Acoustics, Speech, and Signal Processing (2025)
N Eghbali, H Bagher-Ebadian, T Alhanai, MM Ghassemi
[Code]

[42] **An LSTM Feature Imitation Network for Hand Movement Recognition from sEMG Signals**
IEEE International Conference on Acoustics, Speech, and Signal Processing (2025)
C Wu, SF Atashzar, MM Ghassemi, T Alhanai

[41] **Feature Imitating Networks Enhance Performance, Reliability and Speed of Deep Learning On Biomedical Image Processing Tasks**
46th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (2024)
S Min, HB Ebadian, T Alhanai, MM Ghassemi

[40] **Improving Automating Quality Control in Radiology: Leveraging Large Language Models to Extract Correlative Findings in Radiology and Operative Reports**
AMIA Summits on Translational Science Proceedings (2024)
N Eghbali, C Klochko, P Razoky, P Chintalapati, E Jawad, Z Mahdi, J Craig, MM Ghassemi
[Code]

[39] **Iterative Prompt Refinement for Radiation Oncology Symptom Extraction Using Teacher-Student Large Language Models**
International Conference on the Use of Computers in Radiation Therapy (ICCR) (2024)
R. Khanmohammadi, A. I. Ghanem, K. Verdecchia, R. Hall, M. Elshaikh, B. Movsas, H. Bagher-Ebadian, I. Chetty, M. M. Ghassemi, K. Thind

[38] **A Novel Localized Student-Teacher LLM for Enhanced Toxicity Extraction in Radiation Oncology**
Annual Meeting Proceedings, the special edition of ASTRO's Red Journal (2024)
R Khanmohammadi, Ah Ghanem, K Verdecchia, R Hall, M Elshaikh, B Movsas, H Bagher-Ebadian, I Chetty, MM Ghassemi, K Thind

[37] **Data Selective NLMS Outperforms LSTM and Futures for Regional Soybean Prices Forecasting**
European Signal Processing Conference (2024)
H Yazdanpanah, AC Teixeira, V Marar, A Pezente, MM Ghassemi

[36] **Temporal Link Prediction Using Graph Embedding Dynamics**
IEEE International Conference on Multimedia Big Data (2023)
S Hasanzadeh, H Nasiri, MM Ghassemi

[35] **Enhancing Credit Risk Reports Generation using LLMs: An Integration of Bayesian Networks and Labeled Guide Prompting**
International Conference on AI in Finance (2023)
A Teixeira, V Marar, H Yazdanpanah, A Oliveira, Mohammad Ghassemi

[34] **Bayesian Networks Improve Out-of-Distribution Calibration for Agribusiness Delinquency Risk Assessment**
International Conference on AI in Finance (2023)
A Teixeira, H Yazdanpanah, A Pezente, Mohammad Ghassemi

[33] **Reinforcement Learning approach to Sedation and Delirium Management in the Intensive Care Unit**
IEEE International Conference on Biomedical and Health Informatics (2023)
N Eghbali, T Alhanai, MM Ghassemi

[32] **Do Explanations Improve the Quality of AI-assisted Human Decisions? An Algorithm-in-the-Loop Analysis of Factual & Counterfactual Explanations**
22nd International Conference on Autonomous Agents and Multiagent Systems (2023)
L Ibrahim, MM Ghassemi, T Alhanai

[31] **Automation of Protocoling Advanced MSK Examinations Using Natural Language Processing Techniques**
Proceedings of the American Medical Informatics Association (2023)
N Eghbali, C Clochko, D Siegal, MM Ghassemi

[30] **Open-source Code Repository Attributes Predict Impact of Computer Science Research**
ACM Digital Libraries (2022)
P Shashikumar, MM Ghassemi, T Alhanai

[29] **Feature Imitating Networks**
ICASSP (2022)
S Sadiya, T Alhanai, MM Ghassemi

[28] **A Machine Learning Approach to Detect Early Signs of Startup Success**
ICAIF (2021)
A Thirupathi, T Alhanai, MM Ghassemi

[27] **SupCL-Seq: Supervised Contrastive Learning for Downstream Optimized Sequence Representations**
EMNLP (2021)
H Sedghamiz, S Raval, E Santus, T Alhanai and M Ghassemi

[26] **Exploring a Unified Sequence-To-Sequence Transformer for Medical Product Safety Monitoring in Social Media**
EMNLP (2021)
H Sedghamiz, S Raval, E Santus, T Alhanai and M Ghassemi,

[25] **Modeling Simultaneous Preferences for Age, Gender, Ethnic, and Professional Profiles in Government-expense Spending: A Conjoint Analysis**
AAAI HCOMP (2021)
L Ibrahim, MM Ghassemi, T Alhanai,

[24] **Artifact Detection and Correction in EEG data: A Review**
IEEE Neural Engineering Conference (2021)
S. Sadiya, T. Alhanai, MM Ghassemi

[23] **EEG Channel Interpolation Using Deep Encoder-decoder Networks**
IEEE International Conference on Bioinformatics and Biomedicine (2020)
S. Sadiya, T. Alhanai, T Liu, MM Ghassemi

[22] **The Automated Venture Capitalist:Data and Methods to Predict the Fate of Startup Ventures**
AAAI (2020)
MM Ghassemi, C Song, T Alhanai

[21] **SPread: Automated Financial Metric Extraction and Spreading Tool from Earnings Reports**
ACM International Conference on Web Search and Data Mining (2020)
A Nourbakhsh, MM Ghassemi and S Pomerville

[20] **A Repository of Corpora for Summarization**
The International Conference on Language Resources and Evaluation (2018)
F Dernoncourt, MM Ghassemi, W Chang

[19] **Detecting Depression with Audio/Text Sequence Modeling of Interviews**
Interspeech (2018)
T Alhanai, MM Ghassemi, J Glass
[best paper award]

[18] **You Snooze, You Win: the PhysioNet/Computing in Cardiology Challenge**
Conference on Computing in Cardiology (2018)
MM Ghassemi, BE Moody, LH Lehman, C Song, Q Li, H Sun, RG Mark, MB Westover, GD Clifford [website]

[17] **A Deep Deterministic Policy Gradient Approach to Medication Dosing and Surveillance in the ICU**
IEEE Engineering in Medicine and Biology Society (2018)
R Lin, MD Stanley, MM Ghassemi, S Nemati

[16] **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 Rafa, RG Mark, S Nemati, FH Chokshi

[15] **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

[14] **One-year mortality after recovery from critical illness: A retrospective cohort study**
PloS one (2018)
S Lokhandwala, N McCague, A Chahin, B Escobar, M Feng, MM Ghassemi, D J Stone, LA Celi

[13] **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

[12] **Predicting Latent Narrative Mood using Audio and Physiologic Data**
Association for the Advancement of Artificial Intelligence (2017).
MM Ghassemi, T AlHanai

[11] **The Effects of Deep Network Topology on Mortality Prediction**
IEEE Engineering in Medicine and Biology Society (2016)
D Hao, MM Ghassemi M Feng

[10] **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

[9] **Using Paraphrases to Improve Tweet Classification: Comparing WordNet and Word Embedding Approaches**
IEEE International Conference on Big Data (2016)
Q Li, S Shah, M Ghassemi, R Fang, A Nourbakhsh, X Liu

[8] **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

[7] **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

[6] **A Visualization of Evolving Clinical Sentiment Using Vector Representations of Clinical Notes**
Conference on Computing in Cardiology (2015)
MM Ghassemi, RG Mark, S Nemati

[5] **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

[4] **An Enhanced Cerebral Recovery Index**
IEEE Engineering in Medicine and Biology Conference (2015)
MM Ghassemi, E Amorim, RG Mark, EN Brown, MB Westover

[3] **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

[2] **Management and Analysis 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

[1] **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

[book] **Blended Learning in Practice: A Guide for Practitioners and Researchers**
MIT Press (2019) AG Madden, L Margulieux, RS Kadel, AK Goel, RA DeMillo, B Ferri, J Harris, A Ferri, D Joyner, M Braunstein, JC Cox, V Sadiraj, JF Sweeney, C Hiddleson, TG Buchman, MM Ghassemi, S Nemati, P Braun, AB Goodman, R Burnett, O Menagarishvili, A Frazee, D Webster, JL Doux, J Bankoff, KJ Knoespel

[chapter] **Communication Networks and Global Health**
Global Health Informatics Book
MIT Press (2017)
M Feng, MM Ghassemi

[book] **Secondary Analysis of Electronic Medical Records** (1M+ downloads)
Springer (2016)
LA Celi, P Charlton, MM Ghassemi, AEW Johnson, M Komorowski, D Marshall, T Naumann, K Paik, TJ Pollard, J Rafa, J Salciccioli

[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

SIGNIFICANT DATA AND CODE REPOSITORIES

[data] **Translations of MMLU and Winogrande into 11 African Languages**
HuggingFace (2024)
T Alhanai, A Kasumovic, MM Ghassemi, A Zitzelberger, J Lundin, G Chabot-Couture.

[data] **I-CARE: International Cardiac Arrest REsearch consortium Database**
Physionet (2023)
E Amorim, W Zheng, JW Lee, S Herman, MM Ghassemi, A Sivaraju, N Gaspard , J Hofmeijer , M van Putten , M Reyna , G Clifford, B Westover.

[code] **BRAIN initiative Workspace to Organize the Knowledge Space**
GitHub (2022)
MM Ghassemi, G Pen, J Gnadt, M Ferrante, S Wright, K David, C Fang, J Ngai.

[code] **A Hands-on Introduction to Natural Language Processing**
GitHub (2021)
MM Ghassemi

[data] **MIMIC-III, A Freely Accessible Critical Care Database**
Physionet (2016)
T Pollard, A Johnson, L Shen, L Lehman, M Feng, MM Ghassemi, B Moody, P Szolovits, LA Celi, RG Mark

INDUSTRY WHITE PAPERS

[paper] **A Protocol for Decentralized Human Networks**
Hivemind Networks (2019)
N Mazen, A Moghimi, Y Ozcan, MM Ghassemi, J Moffet

SHORT PAPERS, KEYNOTES, TUTORIALS AND ABSTRACTS

[slides] **Tutorial: Large Language Models for NLP in Finance**
International Conference for AI in Finance (2023)
S Kaur, C Smiley, X Liu, E Kochkina, M Li, Mohammad Ghassemi, R Khanmohammadi

[poster] [paper] **Investigating the Impact of Scientific Innovations on Clinical Care: A Case Study of Appendicitis Treatment**
IEEE EMBS International Conference on Biomedical & Health Informatics (BHI) (2023)
N Eghbali, R Marlar, J Lippard, H Zheng, D Dursun, M Vassar, MM Ghassemi

[abstract] [slides] **The Challenges and Opportunities for Healthcare Recommendation Systems in a Rapidly Evolving Health Data**
ACM Conference Series on Recommender Systems (2018)
MM Ghassemi

[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 Sivaraju, 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-NIBIB Trainee Conference (2014)
MM Ghassemi, EN Brown

INVITED TALKS AND PANELS

Grow Bolder - Center For Innovation Conference December 2024
Invited Panelist *Grand Rapids, MI*

Presented "What the Tech is going on?" A discussion on the applications of AI for care of the elderly.

Michigan Startup Capital Summit September 2024
Invited Panelist *Ann Arbor, MI*

Presented "Strategies for investing in early-stage AI companies".

Lansing CEO Network November 2024
Invited Talk *Lansing, MI*

Presented "What is AI, and, how businesses can best leverage it."

MSU Data Science Summit September 2024
Panel Moderator *East Lansing, MI*

Moderated a discussion on "AI and Cybersecurity".

AWS MedHealth Summit April 2024
Invited Panelist *Detroit, MI*

Participated in the AWS Moderated Panel on "Generative AI in Healthcare".

MSU Center for Bioethics: Brews and Views February 2024
Invited Speaker *East Lansing, MI*

Panel discussion on "the future of AI, and its applications to healthcare".

Trustmark Insurance Leadership Summit February 2024
Invited Speaker *San Fransisco, California*

Presented on "tWhat is AI, and how will it change insurance?".

CAQH Connect Sept 2023
Invited Speaker *Washington, DC*

Presented on the future of AI, and its applications to healthcare.

MSU Foundation - Data Science Summit March 2023
Invited Speaker *East Lansing*

Moderated a discussion on novel industrial applications enabled by AI generally, and generative AI specifically.

BrainX Community Live Dec 2022
Invited Speaker *Ohio*

Discussed the future of data science "BRAIN Initiative Workspace to Organize the Knowledge Space." see link to podcast here

National Institutes of Mental Health - TIPS March 2023
Invited Speaker *Remote*

Presented on our efforts to represent scientific knowledge base as a temporal hypergraph.

Association of Centers for AI in Medicine Sept 2022
Invited Speaker *Remote*

Presented on our NLP in Healthcare.

ACM International Conference on AI in Finance Workshops Nov 2022
Invited Speaker *New York*

Presented "BRAIN Initiative Workspace to Organize the Knowledge Space." at the Grpah Learning Workshop.

NeuroIPS Workshops Dec 2022
Invited Speaker *San Fransisco*

Presented "BRAIN Initiative Workspace to Organize the Knowledge Space." at the GLIndA workshop

AIMed Global Summit May 2022
Invited Speaker *San Francisco*

Discussed "Healthcare data: sharing and access strategies"

National Science Foundation - Enterprise Data Governance and Education (EDGE) March 2022
Invited Speaker *Remote*

Enterprise Data Governance and Education (EDGE) is a community of practice within NSF focused on data and analytics and is chaired by NSF's Chief Data Officer; we disucssed my efforts on the "BRAIN Initiative Workspace to Organize the Knowledge Space."

HIMSS Machine Learning and AI for Healthcare Forum December 2021
Invited Speaker *Remote*

Disucssed "AI Models, Bias and Inequity"

NIH - National Advisory Council for Biomedical Imaging and Bioengineering September 2021
Invited Speaker *Remote*

Presented "BRAIN Initiative Workspace to Organize the Knowledge Space." to audience of researchers working in the Neuroscience space. See video here (starts at 3:23).

Bio-IT World Conference September 2021
Invited Panel *Remote*

Presented "BRAIN Initiative Workspace to Organize the Knowledge Space." to audience of researchers working in the Neuroscience space.

NIH - Neuroscience Investigators Virtual Conference August 2021
Invited Keynote *Remote*

Presented "BRAIN Initiative Workspace to Organize the Knowledge Space." to audience of researchers working in the Neuroscience space.

Phillips Research August 2021
Invited Talk *Cambridge, MA*

Presented "Unsupervised EEG Artifact Detection and Correction" to audience of 100+ researchers working in health/AI space.

Bayer AG July 2021
Invited Talk *USA, Remote*

Presented "Modeling Cognitive Health from Speech and Language" to audience of 50+ researchers working in the Pharma and AI space.

NIH - BRAIN Initiative Investigators Meeting June 2021
Invited Workshop *USA, Remote*

Presented "BRAIN Initiative Workspace to Organize the Knowledge Space." to audience of Neuroscience researchers affiliated with the BRAIN initiative.

International Workshop on Health Recommender Systems October 2018
Invited Keynote *Vancouver, CA*

Presented "The Challenges and Opportunities for Healthcare Recommendation Systems in a Rapidly Evolving Health Data Ecosystem"; see announcement here.

Intelligent Health September 2018
Invited Speaker *Basel, Switzerland*

Presented "A Wearable AI system to Detect Conversational Tone"; see programme here.

Medical Development Group Forum September 2018
Invited Speaker *Weston, MA*

Presented "Artificial Intelligence (AI) in Healthcare: How AI Applications Will Affect Your Life Personally and Professionally"; see announcement here.

Michigan State University Jan 2018
Invited Speaker *East Lansing, MI*

Presented "Healthcare 2.0: Integrating health and Behavioral Data for AI-driven Care"; see announcement here.

Aetna March 2018
Invited Speaker, Leader Speaker Series *Hartford, CT*

Discussed how technology can play a role in helping us learn more about ourselves, and improve our lives.

Univsersity of Tennessee March 2018
Invited Speaker *Knoxville, TN*

Discussed how advances in data science and machine learning can help us better understand and improve our personal lives; see announcement here; see video of talk here

TEDx Beacon Street November 2017
Invited Speaker *Somerville, MA*

Presented "How to find the most interesting person you've never met"; see full presentaion here.

Massachusetts Institute of Technology October 2017
Invited Speaker *Cambridge, MA*

Presented "Techniques the the Prognostication of Coma Following Cardiac Arrest" at the Institute for Medical Science and Engineering.

International Conference on Extreme Learning Machines October 2017
Keynote Speaker *Yuntai, China*

Presented "Time Sensitive Modeling For Better Clinical Prognostication"; see announcement here.

Affectiva March 2017
Invited Speaker *Boston, MA*

Presented "Detecting latent narrative mood using audio and physiologic data"; see announcement here.

Samsung Strategy and Innovation Center February 2017
Invited Speaker *San Jose, CA*

Presented "Detecting Latent Narrative Mood using Audio and Physiologic Data".

Stanford University February 2017
Invited Speaker *Stanford, CA*

Presented "Echo Chambers? There's an App for That" at the SPARQ Research Collaborative in the Department of Psychology"; see announcement here.

American Clinical Neurophysiology Society February 2017
Invited Speaker *Pheonix, AZ*

Presented "Quantifying Dynamic EEG Features in Prognosis of Hypoxic Ischemic Encephalopathy"; see program here.

CONFERENCE/CHALLENGE ORGANIZATION

LREC-COLING 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation 2024
Organizing Committee Member

Organizing Committee Member for the Joint Workshop of the 7th Financial Technology and Natural Language Processing (FinNLP)

ACM International Conference on AI in Finance Workshops 2023
Organizing Committee Member *East Lansing, MI*

Organizing Comittee Member for Large Language Models for NLP in Finance: Applications and Challenges

AAAI Workshops 2024
Organizing Committee Member *East Lansing, MI*

Organizing Comittee Member for Joint Workshop of the 7th Financial Technology and Natural Language Processing (FinNLP) and the 5th Knowledge Discovery from Unstructured Data in Financial Services (KDF)

Physionet: Predicting Neurological Recovery from Coma After Cardiac Arrest 2023
Organizing Committee Member *East Lansing, MI*

The goal of the 2023 Challenge is to use longitudinal EEG and ECG recordings to predict good and poor patient outcomes after cardiac arrest; see challenge page here

Physionet: You Snooze You Win 2018
Organizing Committee Member *Cambridge, MA*

Organized a data science challenge for the detection of sleep arousals; see challenge page 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 in 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

[4] **Thromboxane-A Synthase: Potential Diagnostic and Therapeutic Agent for Metastatic Cancers and Cardiac Atherosclerosis** 2024
Provisional Patent Filed *M Mahmoudi, L Sun, M Ghassemi, B Bonakdarpour, M Sayadi*

This invention describes the use of thromboxane-A synthase (TXAS) as both a blood-based biomarker and a therapeutic target for metastatic prostate cancer and atherosclerotic cardiovascular disease. Using causal inference techniques on plasma samples, the inventors identified TXAS as a statistically significant differentiator of disease status. The invention shows promise as a dual-use tool for early diagnosis and targeted intervention, with potential expansion to other metastatic cancers.

[3] **Method and Device for the Passive Recording of the Electrocardiogram while Working at a Desk** 2024
US Patent 20210128064A1 *Mohammad M. Ghassemi, Euma Ishii*

The invention comprises a system that monitors heart activity through embedded ECG sensors in a desk, and desk-related amenities such as a chair, a computer keyboard, a mouse, and a floor mat. The invention also comprises pressure sensors for monitoring a user's presence at the desk. Signals measured from the ECG or pressure sensors are transmitted (in a wired, or wireless fashion) to a computer processing device which applies algorithms to refine the collected signals, and passively estimate the user's ECG.

[2] **Adjustable Solar Cell Network** 2010
US Patent 8188620B2 *Nooribachi*

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

[1] **Modular Solar Device Power Distribution** 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.

EMPLOYMENT ACTIVITIES

Ghamut Corporation October 2016 - Present
Founder *East Lansing, MI*

Ghamut provides professional services in AI consulting and data-driven strategy development. With expertise spanning industries such as healthcare, finance, and technology.

Standard and Poor's Financial Services October 2018 - August 2019
Associate Director, Data Science *New York, NY*

Developed tools and techniques for the automated assessment of nations and international corporations.

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 2011 - 2012
Associate *Dubai, UAE*

Provided evidence-based strategies to public and private sector executives in the Middle East.

Mind Research Network 2010 - 2011
Consultant *Albuquerque, New Mexico*

Investigated functional brain networks in the context on psychiatric illness.

Visible Light Solar Technologies 2008 - 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.

Agilent Technologies May 2007 - August 2007
Intern *Pleasanton, CA*

Designed and contributed toward the implementation of a driver for Agilent's 35900E analog-to-digital converter.

Agilent Technologies May 2006 - August 2006
Intern *Santa Clara, CA*

Investigated, improved and redesigned components of Agilent's 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's operator panel.

GRANTS

Ubuntu and AI: Integrating African Indigenous Knowledge Systems and Emerging Technologies 2025
$74,857 *The Alliance for African Partnership (AAP)*

The project explores how Ubuntu — an African philosophy rooted in community — can inform the ethical development and governance of emerging technologies, such as AI.

Development of Machine Learning-Based Novel Clinical Decision Support Tools in Cancer Patients Undergoing Radiation Therapy 2024 – 2025
$71,232 *Henry Ford Health System*

Developing machine learning-based clinical decision support tools aimed at improving care for cancer patients undergoing radiation therapy, with a focus on personalized treatment strategies.

A Patient Advocacy Web Application 2025 - 2026
$200,000 *Michigan Health Endowment Fund*

Developing a web application and supporting AI tools to empower pregnant minorities by connecting them with health advocates.

Integrating Temporal Graph Neural Networks and Large Language Models for Early Prediction of Market Disruption 2025 - 2026
$70,175 *JPMC Faculty Research Awards*

This project leverages temporal graph neural networks and large language models to develop methods for identifying and predicting market disruptions, enabling proactive strategies in financial markets.

Automated Radiology/Surgery Correlation of Shoulder MR's for Quality Control 2024
$10,000 *Henry Ford Health System*

Developing a system to automate quality control through radiology/surgery correlations in shoulder MRI examinations.

Utilizing LLMs in Improving Efficacy of Radiograph Report Generation 2024
$10,000 *Henry Ford Health System*

Investigating the use of Large Language Models to streamline and improve radiograph report generation processes.

Using Natural Language Transformers to Generate an Appropriate Clinical History for Advanced MSK Imaging Examinations 2024
$10,000 *Henry Ford Health System*

Leveraging Natural Language Transformers to create accurate clinical histories for advanced musculoskeletal imaging.

Google Education Grants. 2022 - 2024
$30,450 : $4,600 (FS '24), $4,600 (SS '24), $2,750 (FS '23), $8,000 (SS '23), $7,000 (FS '22), $3,500 (SS '22) *Google*

Covers $15-50 in Google Cloud credits for each student in MSU's Web Design Course.

The Evolution of Private Capital Modeled as a Graph of Investments 2023 - 2024
$70,000 *JPMC Faculty Research Awards*

The JPMC Faculty Research award is an internationally competitive award granted to selected research leaders in the AI/Finance domain.

Development and implementation of machine learning based novel clinical decision support tool for lung cancer patients 2023 - 2024
$65,590 *Henry Ford Health System*

Use Natural language processing (NLP) techniques to accurately score toxicities in lung cancer patients

EAGER: Causal Analysis through Formal Reasoning and AI for Cancer Diagnostics. 2023 - 2024
$239,960 *National Science Foundation*

Integrational of formal reasoning and machine learning for problems that are relevant to the health sciences.

The Evolution of Private Capital Modeled as a Graph of Investments 2022 - 2023
$95,000 *JPMC Faculty Research Awards*

The JPMC Faculty Research award is an internationally competitive award granted to selected research leaders in the AI/Finance domain.

Magnetic Resonance Imaging Based Radiomics Model for Characterization of Physiological and Mechanical Properties of Solid Tumors in Rat Brain 2021 - 2023
$18,660 *Henry Ford Health System*

To build and validate an adaptive model using radiomic feature sets from existing multi-modal MR images taken in an animal model of cerebral tumor that are correlated with underlying physiological information estimated by DCE-MRI studies of tumor physiology

Development and implementation of machine learning based novel clinical decision support tool for lung cancer patients 2022 - 2023
$62,976 *Henry Ford Health System*

Use Natural language processing (NLP) techniques to accurately score toxicities in lung cancer patients

Developing a system to provide AI-assisted protocoling of advanced radiology examinations. 2021
$36,067.00 *Henry Ford Health System*

Developing a system to provide AI-assisted protocoling of advanced radiology examinations

IPA Assignment Agreement - BRAIN Data Scholar 2021
$165,442 *National Institutes of Health*

IPA award to support my efforts as a National Scholar for Data and Technology Advancement at the NIH BRAIN Initiative.

Identification of Behavioral Risk Profiles via Inverse Reinforcement Learning Granted, January 2021
$65,236 *CSAA Insurance Exchange*

Award to support applications of inverse reinforcement learning to problems in the insurance space; one year granted ($65K) with two additional years to be granted pending progress.

Algorithms for Physiological Monitoring During Spaceflight 2020
$3,000 *Michigan Space Grant Consortium*

Awarded to support the development of a sensor streaming platform.

PROFESSIONAL AFFILIATIONS

Abundant Venture Partners 2024 - Present
Expert Network

A by-invitation-only network of industry experts providing strategic guidance and insights to the Abundant Venture Partners venture studio.

BTG Talent Advisory Council 2020 - Present
Invited Member

The Talent Advisory Council comprises of a small group of BTG's most trusted talent.

Institute for Electrical and Electronic Engineers 2023
Senior Member

IEEE Senior Member status signifies a significant professional accomplishment, recognizing substantial experience, expertise, and contributions in the field of electrical and electronics engineering.

Sigma Xi 2022
Full Member

Sigma Xi is a Scientific Research Honor Society; Full membership is by invitation only. Learn more here.

Artificial Intelligence in Medicine Society 2021
AI Champion

Featured as a leading innovator in the domain of AI applied to healthcare. See press release here.

HONORS AND DISTINCTIONS

MassChallenge Boston 2017
Silver Winner

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

MIT 100K 2017
Semi-Finalist

Selected for work on a web-platform that facilitates platonic social interactions between users.

Bell-Labs Innovation Prize 2015
Finalist

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 2015
Semi Finalist

Selected for work on a wearable, social coaching algorithm.

MIT T=0 Hackathon 2013
Winner *Cambridge, MA*

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

Outstanding Graduating Engineer 2008
New Mexico State University

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

Four Corners Embrace Award 2007
American Petroleum Institute

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

C.A.R.E. Award 2007
Citizens Alliance for Responsible Energy

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) 2005
The White House

Recognized for participating in over 400 hours of community service.

SELECTED MEDIA MENTIONS

[video] **Binary Minds: A.I. in Education** 2024
WKAR Public Media

Featured in "Binary Minds: A.I. in Education," an exploration of how artificial intelligence is being incorporated into classrooms from kindergarten to college, examining its potential to enhance learning or create new challenges like cheating.

[video] **Decoding Disinformation: AI and the Threat to Democracy** 2024
WKAR Public Media

Featured in "Decoding Disinformation: AI and the Threat to Democracy," a television special examining artificial intelligence's role in the spread of disinformation ahead of the 2024 elections.

[video] **Pixels and Perspectives** 2024
NOVA / WKAR Public Media

Featured in "Pixels and Perspectives", and exploration of how A.I. is redefining creativity and the implications it has for the art world.

Model Can More Naturally Detect Depression in Conversations
[MIT News] [TechCrunch] [AAAS] [Forbes] [Smithsonian] [Popular Science] [Axios]

Physician Intuition: Doctors Rely on More than Just Data for Medical Decision Making
[National Geographic] [BJ-HC] [MIT News] [BJ-HC] [Clinical Innovation] [CMAJNews] [TheNational-AE] [PBS]

Sensing the Unspoken: Wearable AI System can Detect a Conversation's Tone
[MIT News] [BBC] [Wired(US)] [Wired(UK)] [WSJ] [Newsweek] [Forbes] [Vice], [Engadget]

Algorithm Connects Students to the Most Interesting Person They've Never Met
[MIT News] [World Economic Forum] [ACM] [The Conversation] [The Tech]

Coma Prognostication
[ET Council]

Biofeedback Game
[Business Insider]

Gates-Cambridge Scholarship
[Gates-Cambridge Trust News], [NMSU News Center]

TEACHING AND TUTORIALS

CSE499: Independent Study US 2023
Instructor *Michigan State University*

Oversaw Independent Study.

CSE890: Capstone FS 2019 - 2022
Team Mentor *Michigan State University*

Provide mentorship and project guidance to students in the Capstone.

CSE477: Web Application Development SS 2020 - Present
Instructor *Michigan State University*

An introductory course to web development that includes HTML, CSS, Python, Javascript and SQL.

CSE842: Natural Language Processing FS 2020
Instructor *Michigan State University*

A graduate level course on Natural Language Processing. Lectures are available online here.

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

Designed a session on predictive modeling, and assessment techniques.

Quantitative Systems Physiology (6.022j) SS 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.

SCIENTIFIC LEADERSHIP ACTIVITIES

Conference on Neural Information Processing Systems (NeurIPS) 2024
Head of the Scientific Committee, Affinity Group on Neurodiversity *Virtual/Global*

Led the scientific committee of the NeurIPS affinity group on Neurodiversity, promoting inclusivity and diversity in technological development and research discourse.

IEEE ICASSP 2023 - Present
Program Committee Member

Refereed papers submitted to the main conference.

ACM ICAIF (Workshops) 2023
Organizing Committee Member

Served as a member of the organizing committee for "Large Language Models for NLP in Finance: Applications and Challenges" Workshop.

National Science Foundation (NSF) 2020
GFRP Reviewer

Reviewed application materials according to intellectual merit and broader impact criteria.

Association for the Advancement of Artificial Intelligence (AAAI) 2018-Present
Program Committee Member

Refereed papers submitted to the main conference and various workshops related to my research.

American Medical Informatics Society 2015-Present
Scientific Reviewer (JAMIA)

Serve as a technical reviewer for journal articles.

Journal of Physiological Measurement 2019
Guest Editor & Program Committee Member

Assessed scientific manuscripts for inclusion in the journal; manuscripts topics were generally associated with the applications of Artificial Intelligence methods to sleep.

MENTORSHIP AND PUBLIC SERVICE

MSU Mid-SURE 2021
Mentor

Provided research mentorship for a student presenting at the 11th annual Mid-Michigan Symposium for Undergraduate Research Experiences (Mid-SURE).

MIT Sandbox 2018
Mentor *Cambridge, MA*

Mentored several aspiring entrepreneurs in the MIT ecosystem.

MIT Graduate Student Council 2015 - 2016
Co-chair of Academics, Research and Careers Committee

Managed $67,000 in resources. Organized multiple workshops and panel discussions on academic and career development. Served as a student member of the *Committee for Graduate Admissions.*

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.

MENTEES AND STUDENTS

Supervised Graduate Students

- Sara Rezaimanesh, CSE, MSU (January 2025 - Present) - PhD Student
- Alireza Khodabakhsh, CSE, MSU (August 2024 - Present) - PhD Student
- Reza Mohammadi, CSE, MSU (August 2022 - Present) - PhD Student
- Niloufar Eghbali, MSU, CSE (January 2021 - Present) - PhD Student

- Serena Lotrecks, CMSE, MSU (November 2020 - May 2024) - PhD Student
- Sari Sadiya, CSE, MSU (January 2020 - December 2022) - PhD Student
- Norah Alfadhli, CSE, MSU (June 2021 - December 2022) - MSc Student
- Allen Williams, MSU, CSE (August 2020 - August 2023) - MSc Student

Supervised Undergraduate Students

- Shahaab Ali, CSE, MSU (August 2024 - Present) - Professorial Assistant
- Luke Hausner, CSE, MSU (August 2024 - December 2024) - Professorial Assistant
- Ailin Patimar, CSE, MSU (May 2024 - December 2204) - Professorial Assistant
- Quinn Fransen, CSE, MSU (August 2023 - Present) - Professorial Assistant
- Thomas Carvajal, CSE, MSU (Jan 2024 - August 2024) - Undergraduate Research Assistant
- Sampan Chaudhuri, CSE, MSU (August 2023 - August 2024) - Professorial Assistant
- Navya Singh, CSE, MSU (August 2022 - August 2024) - Professorial Assistant
- Nathan Done, CSE, MSU (January 2024 - March 2024) - Undergraduate Researcher
- Minh Pham, CSE, MSU (August 2022 - February 2024) - Professorial Assistant
- Misha Lemper, CSE, MSU (May 2023 - April 2024) - Undergraduate Researcher
- Harshith Medani, CSE, MSU (August 2023 - December 2023) - Professorial Assistant
- Shangyang Min, CSE, MSU (August 2022 - August 2023) - Undergraduate Researcher
- Samin Matin, CSE, MSU (August 2022 - August 2023) - Professorial Assistant
- Anvita Gollu, CSE, MSU (October 2022 - December 2023) - Professorial Assistant
- Abhi Thirupathi, CSE, MSU (August 2020 - August 2022) - Undergraduate Researcher
- Spencer Novick, CSE, MSU (August 2020 - March 2021) - Undergraduate Researcher
- Savvy Barnes, CSE, MSU (October 2022 - May 2023) - Undergraduate Researcher
- Aven Zitzelberger, CSE, MSU (June 2020 - August 2021) - Undergraduate Researcher
- Rachel Townson, CSE, MSU (August 2019 - August 2020) - Undergraduate Researcher
- David Lingan, CSE, MSU (January 2022 - November 2022) - Professorial Assistant

Guidance Committee Students

- Ahmad Hejasebazzi, CSE, MSU (January 2024 - Present) - PhD Student
- Qiqige Wuyun, CSE, MSU (November 2020 - Present) - PhD Student
- Michelle Kim, CSE, MSU (November 2023 - Present) - PhD Student
- Aliakbar Nafar, CSE, MSU (November 2024 - Present) - PhD Student
- Julia Zheng, CSE, MSU (November 2020 - Present) - PhD Student
- Cagri Kaymak, CSE, MSU (Feb 2023 - December 2023) - PhD Student
- Roshanak Mirzaee Mazrae, CSE, MSU (February 2021 - December 2023) - PhD Student
- Andy Tang, CSE, MSU (December 2020 - August 2021) - PhD Student

Other

- Hooman Sedghamiz, Data Science Leader, Bayer (June 2020 - August 2021) - Mentee
- Julian Ishii-Rousseau, MD PhD, Tokyo Medical University (August 2018 - Present) - Mentee
- Darshan Nandasana, BDSA, MSU (May 2023 - August 2023) - MS BDSA Student
- Syed Imam, BDSA, MSU (May 2023 - August 2023) - MS BDSA Intern
- Sandeep Kumar, BDSA, MSU (May 2023 - August 2023) - MS BDSA Intern
- Jeeva Bhavanandam, CMSE, MSU (November 2020 - August 2024) - MSc Student

REFERENCES AND COLLABORATORS

Chad Klochko, M.D. 2020 - Present
Staff Radiologist, Henry Ford Hospital

Scientific collaborator for NLP/Radiology work.

Roger G. Mark, M.D. Ph.D. 2011 - Present
Professor, Massachusetts Institute of Technology

Ph.D. supervisor

Armineh Nourbakhsh 2018 - 2019
Vice President, AI Research, JP Morgan Chase

Collaborator in development of NLP finance tools.

Sameena Shah, Ph.D. 2018 - Present
Managing Director, AI Research, JP Morgan Chase

Former supervisor and scientific collaborator

Tuka Alhanai, Ph.D. 2014 - Present
Founder, Ghamut Corporation

Scientific collaboration and Co-founder of Ghamut Corporation

Shamim Nemati, Ph.D. 2012 - 2018
Professor, University of California, San Diego

Former Scientific collaborator

Gari Clifford, Ph.D. 2015 - 2018
Professor, Georgia Institute of Technology

Scientific collaborator

Emery N. Brown, M.D. Ph.D. 2013 - 2018
Professor, Massachusetts Institute of Technology

Ph.D. supervisor

M. Brandon Westover, M.D. Ph.D. 2013 - 2018
Professor, Harvard Medical School

Ph.D. committee member