

Tristan Naumann

Curriculum Vitae

Computer Science and Artificial Intelligence Lab
Department of Electrical Engineering and Computer Science
Massachusetts Institute of Technology
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tjn@mit.edu

Education & Honors

- Ph.D. Massachusetts Institute of Technology** June 2018 (expected)
Computer Science
Advisor: Professor Peter Szolovits
- M.S. Columbia University** February 2010
Computer Science
Honors: MS-TA Fellowship
Andrew P. Kosoresow Memorial Award for Outstanding Performance in TA and Service
- B.S. Columbia University** February 2009
Computer Science
Honors: Dean's list (all semesters)
- NIH/NLM Biomedical Informatics Research Training Fellowship** 2012–Present

Research Experience

- Research Assistant, Massachusetts Institute of Technology, Cambridge, MA** 2011–Present
Clinical Decision Making Group
Advisor: Professor Peter Szolovits
- Research Assistant, Columbia University, New York, NY** Fall 2009–Spring 2010
Center for Computational Learning Systems (CCLS)
Advisor: Ansa Saleb-Aouissi
- Research Assistant, Columbia University, New York, NY** Summer 2009
Center for Computational Learning Systems (CCLS)
Advisor: Marta Arias

Industry Experience

- Graduate Software Intern, Intel Corporation, Hillsboro, OR** Summer 2013
Health Strategy and Solutions
Scale mortality modeling research for internal whitepaper *Distributed Systems for Clinical Data Analysis*.
Contribute as technical expert toward long-term strategy.
- Program Manager II, Microsoft Corporation, Redmond, WA** 2009–2011
Windows Logo Program
Coordinate the creation of requirements and validation tests across Windows feature teams.
Manage team relationships with top tier partners to ensure great end-user experience.
- Associate Product Management Intern, Google, Inc., New York, NY** Summer 2008
Print Ads Service
Design features to solve three most pressing problems facing Print Ads product.
Managed development process and implementation; contributed to fixing bugs.

Publications

Conferences

Semi-supervised Biomedical Translation with Cycle Wasserstein Regression GANs

Matthew BA McDermott, Tom Yan, Tristan Naumann, Nathan Hunt, Harini Suresh, Peter Szolovits, Marzyeh Ghassemi
AAAI, 2018

Predicting Clinical Outcomes Across Changing Electronic Health Record Systems

Jen J Gong,* Tristan Naumann,* Peter Szolovits, John V Guttag
Proceedings of the 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, 2017

CliNER: A lightweight tool for clinical named entity recognition

William Boag, Kevin Wacome, Tristan Naumann, Anna Rumshisky
AMIA Joint Summits on Clinical Research Informatics, 2015

A Multivariate Timeseries Modeling Approach to Severity of Illness Assessment and Forecasting in ICU with Sparse, Heterogeneous Clinical Data

Marzyeh Ghassemi, Marco AF Pimentel, Tristan Naumann, Thomas Brennan, David A Clifton, Peter Szolovits, Mengling Feng
AAAI, 2015

Scaling the PhysioNet WFDB Toolbox for MATLAB and Octave

Tristan Naumann, Ikaro Silva
Computing in Cardiology Conference (CinC), 2014

Unfolding physiological state: Mortality modelling in intensive care units

Marzyeh Ghassemi, Tristan Naumann, Finale Doshi-Velez, Nicole Brimmer, Rohit Joshi, Anna Rumshisky, Peter Szolovits
Proceedings of the 23rd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, 2014

Journals

Natural Language Processing for EHR-based Computational Phenotyping

Zexian Zeng, Yu Deng, Xiaoyu Li, Tristan Naumann, Yuan Luo
IEEE-TCBB Special Issue, 2018.

Predicting early psychiatric readmission with natural language processing of narrative discharge summaries

Anna Rumshisky, Marzyeh Ghassemi, Tristan Naumann, Peter Szolovits, Victor M Castro, Thomas H McCoy, Roy H Perlis
Nature, Translational Psychiatry, 2016

A datathon model to support cross-disciplinary collaboration

Jerôme Aboab,* Leo A Celi,* Peter Charlton,* Mengling Feng,* Mohammad Ghassemi,* Dominic C Marshall,* Louis Mayaud,* Tristan Naumann,* Ned McCague,* Kenneth E Paik,* Tom J Pollard,* Matthieu Resche-Rigon,* Justin D Saliccioli,* David J Stone* (* all authors contributed equally)
Science Translational Medicine, 2016

Datathons and Software to Promote Reproducible Research

Leo A Celi,* Sharukh Lokhandwala,* Robert Montgomery,* Christopher Moses,* Tristan Naumann,* Tom J Pollard,* Daniel Spitz,* Robert Stretch* (* all authors contributed equally)
Journal of Medical Internet Research, 2016

Making Big Data Useful for Health Care: A Summary of the Inaugural MIT Critical Data Conference

Omar Badawi,* Thomas Brennan,* Leo A. Celi,* Mengling Feng,* Marzyeh Ghassemi,* Andrea Ippolito,* Alistair Johnson,* Roger G Mark,* Louis Mayaud,* George Moody,* Christopher Moses,* Tristan Naumann,* Vipin Nikore,* Marco Pimentel,* Tom J Pollard,* Mauro Santos,* David J Stone,* Andrew Zimolzak* (* all authors contributed equally)

JMIR Medical Informatics, Vol 2, No 2 (2014): Jul-Dec

Workshops

Learning Physiological Decline via Random Structure Mortality Prediction Using Split RNN

Matthew McDermott, Marzyeh Ghassemi, Nathan Hunt, Harini Suresh, Geeticka Chauhan, Tristan Naumann, Peter Szolovits

NIPS Workshop on Machine Learning for Health (ML4H), 2017

CLiNER 2.0: Accessible and Accurate Clinical Concept Extraction

Willie Boag, Elena Sergeeva, Saurabh Kulshreshtha, Peter Szolovits, Anna Rumshisky, Tristan Naumann

NIPS Workshop on Machine Learning for Health (ML4H), 2017

Towards the Creation of a Large Corpus of Synthetically-Identified Clinical Notes

Willie Boag, Tristan Naumann, Peter Szolovits

NIPS Workshop on Machine Learning for Health (ML4H), 2016

Topic models for mortality modeling in intensive care units

Marzyeh Ghassemi, Tristan Naumann, Rohit Joshi, Anna Rumshisky

ICML Workshop on Machine Learning for Clinical Data Analysis, 2012

Books

Secondary Analysis of Electronic Health Records

MIT Critical Data, Editor

Springer International, 2016

Chapter: “Data Analysis”

Jesse D Raffa, Marzyeh Ghassemi, Tristan Naumann, Mengling Feng, Douglas Hsu

Secondary Analysis of Electronic Health Records (pp. 205-261), 2016.

Teaching Experience

Instructor, Massachusetts Institute of Technology

HST.953 Collaborative Data Science in Medicine

Fall 2016, 2017

IAP Intro to Version Control using Git & GitHub

Winter 2015, 2016, 2017, 2018

Project Mentor, Massachusetts Institute of Technology

HST.953 Innovations in Global Health Informatics

Fall 2015

Teaching Assistant, Massachusetts Institute of Technology

6.872 Biomedical Computing with Professor Peter Szolovits

Fall 2015

Teaching Assistant, Columbia University

COMS 4241 Numerical Algorithms and Complexity with Professor Joseph F. Traub

Spring 2009

COMS 3210 Scientific Computation with Professor Joseph F. Traub

Spring 2007, 2008, 2009

Service

Program Chair

NIPS Workshop on Machine Learning for Health (ML4H)	2017
COLING Workshop on Clinical Natural Language Processing (ClinicalNLP)	2016

Area Chair

Machine Learning for Healthcare Conference (MLHC)	2018
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Program Committee

ACM Conference on Information and Knowledge Management (CIKM)	2017
IJAI Workshop on Knowledge Discovery in Healthcare Data (KDH)	(2018)
Machine Learning for Healthcare Conference (MLHC)	2016, 2017, (2018)
NIPS Workshop on Machine Learning for Health (ML4H)	2016, 2017

Technical Reviewer

American Medical Informatics Association (AMIA) Annual Symposium	2015, 2016, 2017, (2018)
American Medical Informatics Association (AMIA) Joint Summits	2017, 2018
Journal of Medical Internet Research (JMIR)	2017
Journal of Machine Learning Research (JMLR) S.I.: ML for Health and Medicine	2015

Workshop Organizer

MIT Better Science Ideathon	2018
MIT Hack for Inclusion	2018
NIPS Workshop on Machine Learning for Health (ML4H)	2017
MIT Hacking Discrimination	2017
COLING Workshop on Natural Language Processing	2016
MIT Critical Data Conference & Datathon	2013, 2014, 2015

Admissions Committee

MIT EECS Graduate Admissions Committee	2015, 2016, 2017
MIT Summer Research Program (MSRP) Admissions Committee	2016, 2017, 2018

Community

CSAIL Alliance Program: Recruiting Panel	2016, 2017
Graduate Students Association: RQE Panel	2016