

Tom Hartvigsen

twhartvigsen@wpi.edu

[thartvigsen.github.io](https://github.com/thartvigsen)

RESEARCH INTERESTS: Representation Learning, Recurrent Neural Networks, Machine Learning for Healthcare.

EDUCATION

Worcester Polytechnic Institute, Worcester, MA

Ph.D., Data Science

August 2016-Present

Advisors: Elke Rundensteiner, Xiangnan Kong

M.S., Data Science

Dec 2018

Advisors: Elke Rundensteiner, Xiangnan Kong

Thesis: *Adaptive-Halting Policy Network for Early Classification.*

SUNY Geneseo, Geneseo, NY

B.A., Applied Mathematics

August 2012-May 2016

BioMathematics minor

Advisors: Chris Leary, Kirk Anne

PUBLICATIONS

PEER-REVIEWED CONFERENCE PROCEEDINGS

Adaptive-Halting Policy Network for Early Classification.

Thomas Hartvigsen, Cansu Sen, Xiangnan Kong, Elke Rundensteiner.

ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2019.

Comparing General and Locally-Learned Word Embeddings for Clinical Text Mining.

Jidapa Thadajarassiri, Cansu Sen, Thomas Hartvigsen, Xiangnan Kong, Elke Rundensteiner.

IEEE International Conference on Biomedical and Health Informatics (BHI), 2019.

Early Prediction of MRSA Infections using Electronic Health Records.

Thomas Hartvigsen, Cansu Sen, Sarah Brownell, Erin Teeple, Xiangnan Kong, Elke Rundensteiner.

International Conference on Health Informatics (HEALTHINF), 2018. Short-listed for Best Student Paper.

CREST - Risk Prediction for Clostridium Difficile Infection Using Multimodal Data Mining.

Cansu Sen, Thomas Hartvigsen, Kajal Claypool, Elke Rundensteiner.

European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD), 2017.

PEER-REVIEWED JOURNAL PROCEEDINGS

Detecting MRSA Infections by Fusing Structured and Unstructured Electronic Health Record Data.

Thomas Hartvigsen, Cansu Sen, Elke Rundensteiner.

To appear in Communications in Computer and Information Science.

MANUSCRIPTS UNDER SINGLE-BLIND REVIEW

Predicting Hospital-Acquired Clostridium Difficile Infection Using Electronic Health Record Information.

Erin Teeple, Thomas Hartvigsen, Cansu Sen, Elke Rundensteiner.

PROFESSIONAL EXPERIENCE

Machine Learning Research Intern, UMMS, Mentored by Dr. Jomol Matthew

Sep 2018 - May 2019

NSF REU Intern, University of Arizona, Mentored by Prof. Shirley Papuga

Summer 2015

Research Assistant, SUNY Geneseo, Mentored by Prof. Chris Leary

Sep 2014 - May 2016

SELECTED AWARDS

KDD 2019 Student Travel Grant , ACM	August 2019
WPI Graduate Student Travel Grant	2019
Best Poster , Graduate Research Innovation and Exchange, WPI	2019
People's Choice Poster Award , Graduate Research Innovation and Exchange, WPI	2018
WPI Graduate Student Travel Grant	2018
People's Choice Poster Award , Graduate Research Innovation and Exchange, WPI	2017
WPI Graduate Student Travel Grant	2017
GAANN Ph.D. Fellowship , US Dept. of Ed.	2016-2021

TEACHING

NSF REU primary mentor , WPI.	Summers 2017-19
<i>Students</i> : Y. Klindziuk, D. Johnston, L. Nazarov, J. Friend, A. Hauck, S. Brownell, S. Tocci.	
<i>Outcomes</i> : Three papers from two summers of advising – MIT URTC (2) HEALTHINF (1).	
Teaching Assistant , SUNY Geneseo, Modeling Bio. Systems (2x) and BioStats (1x).	Jan 2015-May 2016
Modeling Biological Systems , SUNY Geneseo	Spring 2016
<i>Guest lecturer</i> : taught Percolation Models, created and led in-class exercise using R.	