# Thomas Hartvigsen

twhartvigsen@wpi.edu

thartvigsen.github.io

RESEARCH INTERESTS: Multivariate time series classification, Recurrent Neural Networks, Deep Learning.

### **EDUCATION**

Worcester Polytechnic Institute, Worcester, MA

Ph.D., Data Science August 2016-Present

Advisors: Elke Rundensteiner, Xiangnan Kong

M.S., Data Science August 2016-Dec 2018

Advisors: Elke Rundensteiner, Xiangnan Kong

Thesis: Adaptively-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.

To appear at KDD 2019.

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

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

To appear at BHI 2019.

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.

Early Prediction of MRSA Infections using Electronic Health Records.

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

HEALTHINF 2018. Nominated for Best Student Paper.

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

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

ECML 2017.

### PROFESSIONAL EXPERIENCE

#### University of Massachusetts Medical School, Worcester, MA

Sep 2018 - May 2019

Machine Learning Research Intern, mentored by Dr. Jomol Matthews.

#### University of Arizona, Tucson, AZ

Summer 2015

NSF Research Experience for Undergraduates Intern, mentored by Dr. Shirley Papuga

#### SUNY Geneseo, Geneseo, NY

Sep 2014 - May 2016

Research Assistant in Math, Biology, and English departments, mentored by Prof. Chris Leary, Prof. Paul Schacht, and Prof. Kirk Anne.

### SELECTED AWARDS

| Best Poster Award, Graduate Research Innovation and Exchange, WPI       | April 2019  |
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| People's Choice Poster Award, Graduate Research Innovation and Exchange | Feb 2017/18 |
| GAANN Ph.D. Fellowship, US Dept. of Ed.                                 | 2016-2021   |

## TEACHING

NSF Research Experience for Undergraduates primary mentor, WPI.

 $Summers\ 2016/17$ 

Teaching Assistant in Mathematics and Biology for

 $\mathrm{Jan}\ 2015\text{-}\mathrm{May}\ 2016$ 

Modeling Biological Systems (2x) and BioStatistics (1x), SUNY Geneseo.

Modeling Biological Systems

Spring 2016

Guest lecturer: taught Percolation Models, created and led in-class exercise using R.