# thom lake statistics | machine learning | algorithms

#### contact

thom.l.lake@gmail.com 269.779.1495

## blog

thomlake.github.io

#### code

github.com/thomlake

## programming

Python Scala JavaScript Julia C/C++ SQL

#### tools

PyTorch Numpy Scipy Sklearn Spark Tensorflow Matplotlib LATEX

## interests

deep learning, neural networks, natural language processing, recommender systems, probabilistic graphical models, representation learning, question answering, learning to rank, reinforcement learning, interactive learning systems, interpretability

# experience

2016–now Amazon Austin, Texas

Machine Learning Scientist

Deep Learning for content ranking, product recommendation, and represen-

tation learning on the Amazon Homepage

2014–2016 Atlas Wearables Austin, Texas

Lead Data Scientist

Dynamic Bayesian networks for one-shot exercise classification, repetition

counting, and form analysis on embedded devices

2013–2014 Zoetis Kalamazoo, Michigan

Data Scientist

Normalizing free form text using statistical NLP and heuristics

2010–2013 WMU Risk Avoidance and Mitigation Department Kalamazoo, Michigan

Research Assistant

Modeling agricultural disease risk with neural networks

2010 Missouri University of Science and Technology Rolla, Missouri

NSF Undergraduate Research

Outlier detection in wireless sensor networks

## education

2012–2015 MS Computer Science Western Michigan University

Thesis: Analyzing repetitive sequences with structured dynamic Bayesian

networks

2009–2012 BS Computer Science

Western Michigan University

Minor: Mathematics

Senior Project: Semi-supervised sentiment analysis with noisy labels

# publications and patents

2018 Attention Based Collaborative Filtering

Under review by AISTATS 2019, preprint available upon request

2015 **US 2015/0005911 A1** 

Portable Computing Device and Analyses of Personal Data Captured There-

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