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
Unity

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 representation 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 **Large-scale Collaborative Filtering with Product Embeddings**
https://arxiv.org/abs/1901.04321

2015 **US 2015/0005911 A1**
Portable Computing Device and Analyses of Personal Data Captured Therefrom