CURRICULUM VITAE

MARTEN L. THOMPSON
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EDUCATION

University of Minnesota, Minneapolis, MN
Ph.D. in Statistics. Advised by Dr. Snigdhansu Chatterjee *2018 - present*

Hamline University, Saint Paul, MN
B.S. in Mathematics. Advised by Dr. Frank Shaw *2012 - 2016*
B.A. in Physics. Advised by Dr. Andy Rundquist *2012 - 2016*

University of York, York, England
Student in Mathematics. *2015*

EMPLOYMENT

UMN Statistical Consulting, Minneapolis, MN
Consultant to the Minnesota Department of Agriculture. *2019*

The MDA began the Nutrient Management Initiative in 2006 to optimize fertilizer efficacy, groundwater quality, and cost. We applied penalized regression and Random Forest methodologies to the initiative's crop yield data to draw inference and make predictions in these three areas. The MDA used our findings to better inform their recommendations and data collecting practices for the next growing season, serving some 97 farmers and crop advisors.

Securian Financial Group, Saint Paul, MN
Associate Application Analyst. *2016 - 2018*

Client meetings, code reviews, and production deployments were the work du jour at Securian. I developed web and batch applications to serve external customers and internal business needs. Soon after hire, I served on a committee overseeing all applications accessing a business unit's databases ensuring consistency, security, data integrity, and redundancy.

Alchemy Logic Systems, Santa Rosa, CA
Data Modeling Consultant. *2015 - 2018*

I developed an anomaly detection method for incoming medical records to meet the best interests of the patient, practitioner, and platform. This relied on a simultaneous understanding of their needs and the information contained within extant historic records. Aspects of the final product are incorporated in the pending patent 14/996,067.

HONORS AND AWARDS

Interdisciplinary Health Data Competition, University of Minnesota *2021*
Finalist team, 2nd place

Bernard H. Lindgren Teaching Assistant Award, University of Minnesota *2020*

Lund Speaking Competition, Hamline University *2016*
2nd Place

Scholarships, Hamline University
Fulford-Karp Scholarship *2014*
Kent H. Bracewell Scholarship *2014*
Dale Irwin Hayes Scholarship *2013*
Presidential Merit Scholarship *2012*

PATENTS

USPTO Application 14/996,067 *2016*
Methods of Obtaining High Accuracy Impairment Ratings and to Assist Data Integrity in the Impairment Rating Process.

PRESENTATIONS AND INVITED TALKS

Joint Statistical Meeting - American Statistical Association *2021*
Network Autoregression of the COVID Burden

The American Physical Society - April Meeting *2017*
Computational Medical Apportionment Determination for Impairment Ratings

National Conference on Undergraduate Research *2014*
Modeling the Helcoseir

Physics Patrol Webinar *2014*
Invited speaker

Minnspire College Housing Conference *2014*
Invited speaker

PROFESSIONAL SERVICE

University of Minnesota
Graduate Student Liaison Committee - Member *2020 - present*

Hamline University
Hamline University Honors - Executive Committee Chair *2013 - 2016*
Society for Physics Students - Treasurer *2014 - 2015*
Residential Housing Assc. - Program Communications Coord. *2013 - 2014*

PROFESSIONAL SOCIETY MEMBERSHIP

Institute of Mathematical Statistics

TEACHING

Instructor, University of Minnesota
Python and Statistical Analysis Short Course (creator and instructor) *2021*

Teaching Assistant, University of Minnesota

STAT 4893W	*2019 - 2021*
STAT 3011	*2019*
STAT 3022	*2018*