Jacob W. Mortensen

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EDUCATION

- Ph.D., Statistics, Simon Fraser University   April 2020

- M.S., Statistics, Brigham Young University   April 2016
  - Thesis: Urban Heat Risk Mapping Using Multiple Point Patterns in Houston, Texas
  - Committee: Matthew J. Heaton (advisor), Natalie J. Blades, and Shannon Tass

- B.S. (*magna cum laude*), Sociology, Brigham Young University   April 2014

PUBLICATIONS IN PREPARATION

- **Mortensen, J.W.**, and Heaton, M.J. "Integrated Distributed Lag Models." Preparing for submission to *Biostatistics*.

PUBLICATIONS

- **Mortensen, J.W.**, Heaton, M.J., and Wilhelmi, O.V. "Urban Heat Risk Mapping of Houston, Texas using Multiple Point Patterns." Under review in *The Journal of the Royal Statistical Society: Series C*.

- **Mortensen, J.W.** and Nelson, K.A. (2014), "Economic Sociology and Immigration." *Marriott Student Review*.

AWARDS, FELLOWSHIPS, AND GRANTS

- "Integrated Distributed Lags: Extending Distributed Lag Models to Continuous Time," (2015) Honorable Mention from the National Science Foundation, Graduate Research Fellowship Program (Role: PI)

- Full Graduate Scholarship, (2014) BYU Department of Statistics (Amount: $12,620).

- First Place, Mary Lou Fulton Undergraduate Research Competition, Brigham Young University, 2014.

- "Major Decisions: The Role of Gender in Selection of a College Major," (2013) BYU Women's Research Initiative (Role: Co-PI; Amount: $5,000).

- "Gender and Choice of Major" (2013), BYU Office of Research and Creative Activities (Role: PI; Amount: $1,500).

- "Impact of Government Run Microfinance Organizations" (2012), BYU Department of Sociology (Role: PI; Amount: $1,000).

- Heritage Scholarship (Full Undergraduate Scholarship), (2007) Brigham Young University (Amount: $20,600).

PRESENTATIONS

- **Mortensen, J.W.**, Heaton, M.J., Monaghan, A.J., and Wilhelmi, O.V. "Urban Heat Risk Mapping of Houston, Texas using Multiple Point Patterns." Conference of the Section on Environmental Sciences of the International Society for Bayesian Analysis, Columbus, OH March 2016.

- Gibbs, B.G., **Mortensen, J.W.**, Peacock, I. and Nelson, K.A. "Trailblazing Without Feminists? Gendered Expectations of 'Major Minorities' on a Conservative Campus." Conference of the American Educational Research Association, Chicago, IL August 2015.

- **Mortensen, J.W.** "Modeling 911 Calls using Poisson Point Processes." BYU Student Research Conference, Provo, UT March 2015.

- **Mortensen, J.W.**, Peacock, I., Nelson, K.A. "The Impact of Gender on Selection of a College Major." Mary Lou Fulton Undergraduate Research Competition, Provo, UT March 2014.

SELECTED WORK EXPERIENCE

- SFU Department of Statistics - Research Assistant   May 2016 - Current

  - Developing statistical methods that use high dimensional spatiotemporal data to answer questions about problems in basketball and sports more broadly.

- BYU Department of Statistics - Research Assistant   January 2015 - April 2016

  - Researched relationships between environmental factors and health outcomes using marked point processes and Bayesian methods.

- Crystal Block - Lead Developer   January 2013 - September 2014

  - Helped recruit, manage, and coordinate the efforts of 6 teams of volunteer interns to generate website content, develop corporate strategy, and create promotional multimedia material.
  - Designed, developed, and maintained crystalblock.com using PHP & MySQL. Launched the site on Microsoft Azure in Spring of 2014.

- BYU McKay School of Education - Web Developer   July 2013 - February 2014

  - Worked with a team of five to build and maintain an online tracking system that helps the 2,000+ students in the School of Education progress through the teaching certification process.
  - Built data reporting and decision-making tools used by leaders in the School of Education to improve the teaching program.

- BYU Department of Sociology - Research Assistant   January 2011 - May 2013

  - Performed every step of large scale survey research from survey design to data entry and analysis.
  - Sampled and surveyed 7,000+ Montana residents three times over two years in order to provide the U.S. Department of Veterans Affairs with critical information about access to health care in rural areas.

SKILLS

- Languages: R (5 years), SAS (5 years), python (4 years), c++ (4 years), Scala (1 year)

- Web Development: HTML, CSS, JavaScript, PHP, SQL, MongoDB, Neo4j, AWS, and Microsoft Azure