Elizabeth (Betsy) Bersson

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EDUCATION

• Duke University

Statistical Science, PhD student

Durham, NC

Aug. 2019 - present

• The University of Alabama

Applied Statistics, MS

Mathematics, BS with honors, minor in Economics

Tuscaloosa, AL

Jan. 2016 - May 2017 Aug. 2013 - May 2017

Working Papers

- 'Optimal Conformal Prediction for Small Areas' with Peter Hoff, submitted
- 'Bounded Rationality, Sticky Prices, and the Zero Lower Bound' with Matthias Paustian and Patrick Hürtgen

Honors and Awards

• Funded by NSF TRIPODs grant, Fall 2021

TEACHING AND MENTORSHIP EXPERIENCE

• Project Manager

Mental Health and the Justice System, Data+

Duke University

Summer 2022

• Mentored a team of 3 undergraduates on a research project exploring the relationship between mental health services and the justice system in Durham County, NC.

• Graduate Mentor

Duke University

INvestigating Febrile Deaths In Tanzania (INDITe)

Spring 2022

- Estimating disease etiology for participants who experienced febrile deaths in Tanzania using a nested partially latent class model.
- Worked with an undergraduate statistician completing a senior-year independent study.

• Graduate Mentor

Duke University

Undergraduate Introduction to Research in Statistical Science Workshop

May 2021

- Mentored a team of team of five undergraduates with varying degrees of research experience on a research project assessing the effectiveness of two common drugs used to prevent opioid relapse.
- The project won 1st place in the USCLAP competition.

• Teaching Assistant

 $Stat\ Inference,\ Regression\ Analysis,\ Case\ Studies$

Duke University Fall 2019-Fall 2021

• The University of Alabama

Grader - Discrete Math, Applied Diff Eq II Math Lab Tutor- all levels Tuscaloosa, AL

Spring 2016 - Spring 2017 Spring 2016 - Spring 2017

Presentations

• 'Supporting mentored undergraduate research in statistics' with Joan Combs-Durso, Yue Jiang, and Edric Tam, contributed talk at ECOTS 2022.

Professional Experience

- The Federal Reserve Board, Macroeconomics and Quantitative Studies Section Washington, DC Senior Research Assistant

 June 2017 June 2019
 - Provided research assistance to senior economists that focused on a variety of macroeconomic theory topics.
 - Collaborated on a FRB-published memo that evaluates and summarizes the effects of forward guidance on commonly used models for policy makers, with Matthias Paustian and John Roberts.
 - Utilized numerical methods to improve the convergence likelihood and decrease run time to solve a
 nonlinear system of equations that models the banking sector. Converted the model to Fortran using
 OpenMP and built a multi-language infrastructure to compare parameter calibrations and evaluate
 results.
 - Started an academic reading group to discuss economic articles with colleagues on a bimonthly basis.

FedEx Services

Memphis, TN

Sales Incentives and Analytics Intern

Summer 2016

- Analyzed sales incentives and performance data using SQL to determine the effectiveness of sales compensation plans.
- Created a self-updating dashboard that is used to help senior level staff form more effective sales incentives structures.

Computer Skills

• Languages: Fortran, Mathematica, Matlab, R, SAS, SQL

• Technologies: Git, Latex, Linux, OpenMP