# Manushi Welandawe

I am currently a PhD candidate in statistics whose main research is focused on developing novel methods for scalable and robust posterior inference. I am seeking an internship with the goal of gaining practical experience in data science and in industry. As part of the internship, I am excited to leverage my experiences with statistical modeling, cutting-edge inference methods, and team-based project work.

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## Experience

**Research Fellow**
Boston University
Boston, MA
Jun 2020 – Present

- Developed a robust and automated algorithm for variational inference, to improve parameter estimation of complex and high dimensional data models.

**Summer Intern**
Argonne National Laboratory
Lemont, IL
Jun – Aug 2022

- Investigated theoretical and empirical properties of gradient estimators in zeroth-order/derivative-free stochastic optimization.
- Awarded by National Science Foundation Division of Mathematical Sciences

**Teaching Fellow**
Boston University
Boston, MA
Sep 2019 - May 2021

- Led discussions; proctoring and grading in Time-series analysis (graduate-level) and Elementary Statistics (undergrad-level)

**Administrative Assistant**
Univ. of Rhode Island
Kington, RI
Jan 2018 - Aug 2019

- Provided statistical consultation to support local research community
- Organized and conducted workshops/short courses in R, SAS, and SPSS

**Teaching Assistant**
Univ. of Rhode Island
Kington, RI
Sep - Dec 2017

- Led discussions; proctoring and grading in Statistics in Modern Society (undergrad-level)

**Junior Analyst**
PepperCube Consultants
Sri Lanka
Jan - Jun 2017

- Conducted statistical analysis for market research to gain insights in existing or newly developed products & services

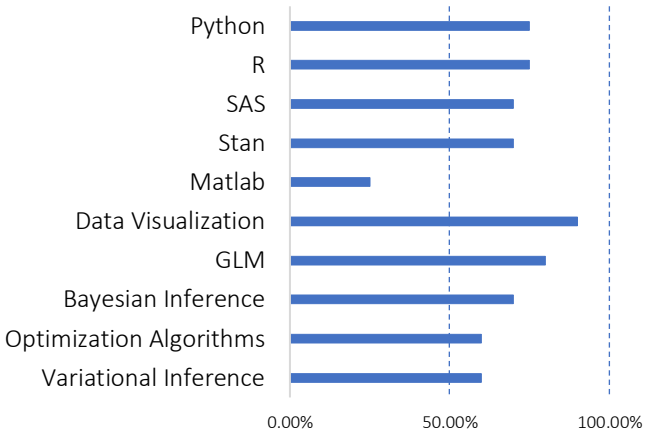
**Teaching Assistant**
Univ. of Sri J'pura
Sri Lanka
Jan - Dec 2016

- Led discussions; proctoring and grading in Data analysis (undergrad – level)

## Volunteer

- Mentored an undergraduate student for research (Aug 2021 – May 2022)
- Member - American Statistical Association (ASA) BU Student Chapter (Sep 2019 – Present)
- Organizing Committee member of URI Grad Con 2019
- Treasurer - ASA URI Student Chapter (Jun 2018 – Aug 2019)

## Skills




## Education

- **Ph.D. in Statistics**
  Boston University
  Expected May 2024
- **MS in Statistics**
  University of Rhode Island
  Aug 2019
  **Thesis -** Mixed-Effects Regression Model for Missing Microbiome Data
- **BS in Statistics**
  University of Sri Jayewardenepura
  Nov 2015

## Relevant Coursework

- Generalized linear models
- Statistical Machine Learning
- Advanced Optimization Algorithms
- Data Science in R

## Interests

Swimming | Baking | Yoga | Hiking | Mobile Photography

## Publications

- Welandawe, M., Andersen, M. R., Vehtari, A., & Huggins, J. (2022). **Robust, Automated, and Accurate Black-box Variational Inference.** arXiv:2203.15945 [stat.ML].
- Dhaka, A. K.*, Catalina, A.*, Welandawe, M., Andersen, M. R., Huggins, J. H., & Vehtari, A. (2021). **Challenges and Opportunities in High-dimensional Variational Inference.** In Proc. of the 35th Annual Conference on Neural Information Processing Systems (NeurIPS).
- Silva, E. N. S., Gangopadhyay, A., Fay, G., Welandawe, M. K., Gawarkiewicz, G., Silver, A. M., ... & Clark, J. (2020). **A Survival Analysis of the Gulf Stream Warm Core Rings.** Journal of Geophysical Research: Oceans, 125(10), e2020JC016507.
- D'Agata, A. L., Wu, J., Welandawe, M. K., Dutra, S. V., Kane, B., & Groer, M. W. (2019). **Effects of early life NICU stress on the developing gut microbiome**. Developmental psychobiology, 61(5), 650-660.

* = contributed equally