Manushi Welandawe

I am currently a PhD candidate in statistics whose main research is focused on improving the robustness and accuracy of existing machine learning methods. 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

- Developing a <u>robust and automated algorithm</u> for variational inference, to improve parameter estimation of complex and high dimensional data models

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

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

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

- Provided <u>statistical consultation</u> 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 <u>statistical analysis</u> 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 <u>Data analysis</u> (undergrad – level)
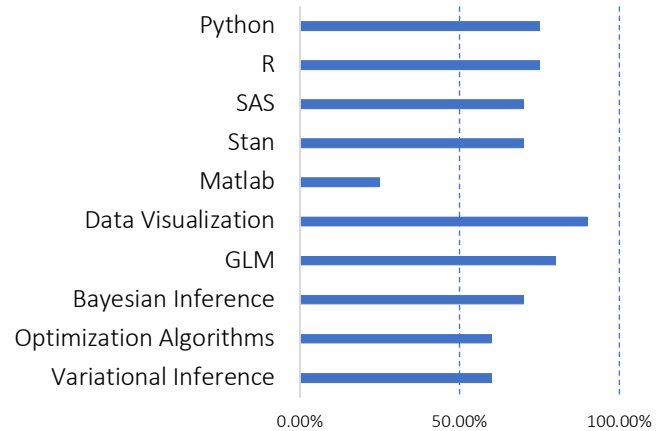
Intern
Export Development Board
Sri Lanka
Jan - Apr 2015

- Developed a <u>time-series model</u> to forecast national exports to be used for setting future targets for the year 2020

Volunteer

- <u>Mentoring</u> an undergraduate student for research (Aug 2021 – Present)
- 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

Skill	
Python	
R	
SAS	
Stan	
Matlab	
Data Visualization	
GLM	
Bayesian Inference	
Optimization Algorithms	
Variational Inference	

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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. (In Preparation). Robust, Automated, and Accurate Black-box Variational Inference.
- 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