

Jonathan Skaza

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Education

University of California, Santa Barbara, PhD Student in Dynamical Neuroscience Present

Advisor: Miguel Eckstein

University of Michigan, M.S. Biostatistics 2017

Advisor: Brisa Sánchez

Bryant University, B.S. Applied Mathematics/Statistics, Applied Economics, *summa cum laude* 2015

Advisor: Brian Blais

Experience

Cold Spring Harbor Laboratory Cold Spring Harbor, NY

Computational Science Developer 2023-2024

Supervisor: Ben Cowley

Computational neuroscience and neuroAI research group led by Ben Cowley. Building connectome-inspired DNNs to understand visual projection neurons (and the computations of visual processing in general) in *Drosophila*. Mentor a talented high school student interested in computational neuroscience.

Panalgo Boston, MA

Associate Director, Product 2022-2023

Lead Analyst 2022

Senior Analyst 2020-2022

Analyst II 2018-2020

Panalgo develops software for Real-World Evidence (RWE) studies. The company maps massive healthcare claims and EHR datasets into a data model and provides a web application to drastically simplify and accelerate patient-level analysis. I worked with clients to implement various types of healthcare studies, engineers to enhance the product, machine learning experts to implement new algorithms, product leaders to develop roadmaps, and business analysts to understand user behavior.

University of Michigan Ann Arbor, MI

Data Scientist 2017-2018

Conducted research involving longitudinal data analysis, functional data analysis, Bayesian hierarchical modeling, data visualization, and data wrangling. Collaborations with University of Michigan Department of Psychiatry and Drexel University Urban Health Collaborative.

University of Michigan Ann Arbor, MI

Graduate Student Research Assistant

2015-2017

Developed statistical methods and applications in modeling cortisol, a biomarker of stress, as part of a psychoneuroendocrinology study. Member of Biostatistics for Social Impact lab.

Bryant University

Smithfield, RI

Undergraduate Research Assistant

2014

Implemented econometric analyses concerning the economic impact of children, the education system, and the defense industry in the state of Rhode Island.

North Carolina State University & Duke University

Raleigh, NC

Summer Institute in Biostatistics

2014

Explored the field of biostatistics through lectures, statistical computing labs, and data analysis project. Sponsored by NHLBI and NCATS.

Publications

Abelson, J., Kirschbaum, C., Herman, J., Skaza, J., & Sanchez, B. (2019). Daily diurnal salivary curves: Are they too noisy to be useful?. *Psychoneuroendocrinology*, 107, 51.

Mayer, S., Abelson, J., Briggs, H., Skaza, J., Kirschbaum, C., & Stalder, T. (2019). How does hair cortisol assessment correspond to saliva measures and to lab-based probes of HPA axis regulatory function?. *Psychoneuroendocrinology*, 107, 50–51.

Abelson, J., Sanchez, B., Zhang, X., Liberzon, I., Briggs, H., & Skaza, J. (2019). Does salivary cortisol reflect key regulatory control aspects HPA axis functioning in healthy humans?. *Psychoneuroendocrinology*, 107, 50.

Wang, J., Fox, I., Skaza, J., Linck, N., Singh, S., & Wiens, J. (2018). The advantage of doubling: A deep reinforcement learning approach to studying the double team in the NBA. *MIT Sloan Sports Analytics Conference*

Skaza, J., & Blais, B. (2017). Modeling the infectiousness of Twitter hashtags. *Physica A: Statistical Mechanics and its Applications*, 465, 289–296.

Skaza, J. (2015). Mathematical modeling of trending topics on twitter. *Bryant University Honors Projects in Mathematics*.

Beaudin, L., & Skaza, J. (2015). Measuring the total impact of demographic and behavioural factors on the risk of obesity accounting for the depression status: a structural model approach using new BMI. *Applied Economics*, 47(55), 6041–6053.

Skaza, J. (2014). Socioeconomic Determinants of Obesity in the United States. *Empirical Economic Bulletin, An Undergraduate Journal*, 7(1), 2.

Skaza, J., & Blais, B. (2013). The relationship between economic growth and environmental degradation: exploring models and questioning the existence of an environmental Kuznets curve. *The Center for Global and Economic Studies at Bryant University Working Paper*(2013-05).

Awards

Sanjay Gupta Family Hackathon Winner	2018
SAS Institute Award (Top Applied Mathematics Undergrad)	2015
Excellence in Economics Award (Top Economics Undergrad)	2015
Honors Program	2011-2015
Undergraduate Research Grant	2013

Certifications

LangChain for LLM Application Development (DeepLearning.AI)	2023
ChatGPT Prompt Engineering for Developers (DeepLearning.AI)	2023
Practical Deep Learning for Coders (fast.ai)	2023
Introduction to SQL (Coursera)	2023
Programming with Google Go Specialization (Coursera)	2022
SAS Certificate in Data Mining (Bryant University & SAS Institute)	2015

Skills

Python (NumPy, Pandas, scikit-learn, Keras, PyTorch), R (tidyverse), Go, Julia, Nim, Jupyter, Git, SQL, MongoDB, \LaTeX , Notion, Jira

Interests

Cognitive Computational Neuroscience, Biologically-Plausible AI, NeuroAI, XAI, Reproducible Research

Select Coursework

Statistical Computing, Machine Learning, Bayesian Inference, GLMs, Longitudinal Analysis, Survival Analysis, Probability, Neuroscience, Cognitive Psychology

References

Available upon request

Updated: Sept. 25, 2024