

Motolani OlarinreWebsite: tolani-o.github.ioGitHub: github.com/Tolani-O

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Education:**Carnegie Mellon University**

Doctor of Philosophy in Statistics and Machine Learning

Pittsburgh, PA

Jan 2025

New Jersey Institute of Technology

Master of Science in Computational Neuroscience | GPA: 3.9/4.0

Bachelor of Science in Applied Mathematics | GPA: 3.7/4.0

Newark, NJ

May 2013

May 2011

Technical Skills:

Python (PyTorch, scikit-learn, NumPy, SciPy), R, SQL, MATLAB, .NET Framework, AWS, Angular.

Work Experience:**Meta Reality Labs****Research Scientist Intern****New York, NY**

May 2024 – August 2024

- Developed algorithms to advance Neuromotor interface technology in consumer products.

Performance Photo Co.**Machine learning engineer****Pittsburgh, PA**

January 2023 – November 2023

- Engineered a deep learning-based person reidentification system that enables precise searches of query pictures within large-scale image databases, attaining 96% rank-1 accuracy.
- Developed an intuitive front-end user interface for searching professional photo albums using Angular framework, and deployed to AWS.
- Increased clients' professional picture sales revenue by 33%.

AT&T Labs**Quantitative Research Intern****Middletown, NJ**

June 2022 – August 2022

- Developed and deployed a statistical model to forecast cell tower user traffic across the country from vast user datasets.
- Increased the forecasting accuracy by 36% over existing baseline.

Intel Corporation**Software engineer****Hillsboro, OR**

July 2013 – July 2018

- Built and maintained full stack windows applications to automate statistical analysis of large production data sets using Microsoft's .NET framework.
- Reduced product testing cost by 40% by applying survival analysis to product data.

Research Experience:**Carnegie Mellon University****Statistics and Machine Learning Department****Pittsburgh, PA**

September 2020 – Present

- Built statistical and machine learning models to describe pathways of signal flow through visual areas of the brain from large scale neuronal recordings.

New Jersey Institute of Technology**Stomatogastric Ganglion (STG) Lab Group****Newark, NJ**

May 2011 – May 2013

- Built bio-physical models of neuronal activity to describe the mechanisms by which they self-regulate.

Publications:

- Kass, R., Bong, H., Olarinre, M., Xin, Q., and Urban, K. "Identification of interacting neural populations: methods and statistical considerations." *Journal of Neurophysiology* 130(3) (2023): 475-496.
- Chen, Y., Douglas, H., Medina, B., Olarinre, M., Siegle, J. and Kass, R. "Population burst propagation across interacting areas of the brain." *Journal of Neurophysiology* 128(6) (2022): 1578-1592.
- Rotstein, H., Olarinre, M., & Golowasch, J. "Dynamic compensation mechanism gives rise to period and duty-cycle level sets in oscillatory neuronal models." *Journal of Neurophysiology* 116(5) (2016): 2431-2452.

Honors:

National Science Foundation Graduate Research Fellowship Program Honorable Mention

March 2020

Intel's Quality and Reliability Divisional Recognition Awardee

March 2018

National GEM Consortium University Fellow

January 2018