Motolani Olarinre
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Education:

Carnegie Mellon University — **Pittsburgh, PA**
Doctor of Philosophy in Statistics and Machine Learning — Jan 2025

New Jersey Institute of Technology — **Newark, NJ**
Master of Science in Computational Neuroscience | GPA: 3.9/4.0 — May 2013
Bachelor of Science in Applied Mathematics | GPA: 3.7/4.0 — May 2011

Technical Skills:

Languages and frameworks: Python (PyTorch, scikit-learn, SciPy), R, SQL, MATLAB, .NET Framework, AWS, Angular.
HPC and version control tools: SLURM, Conda, Git, GitHub.

Work Experience:

Meta Reality Labs — **New York, NY**
Research Scientist Intern — May 2024 – August 2024
- Developed algorithms to advance Neuromotor interface technology in consumer products.

Performance Photo Co. — **Pittsburgh, PA**
Machine learning engineer — 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 — **Middletown, NJ**
Quantitative Research Intern — 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 — **Hillsboro, OR**
Software engineer — 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 — **Pittsburgh, PA**
Statistics and Machine Learning Department — 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 — **Newark, NJ**
Stomatogastric Ganglion (STG) Lab Group — 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