Motolani Olarinre
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Education:

Carnegie Mellon University — **Pittsburgh, PA**
Ph.D. in Statistics and Machine Learning — Jan 2025

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

Technical Skills:

Languages & frameworks: Python (PyTorch, TensorFlow, scikit-learn, SciPy), R, SQL, MATLAB, .NET Framework, Angular.
Machine Learning & AI: Deep Learning, Computer Vision, LLMs (LangGraph), Reinforcement Learning, Bayesian Inference, Statistical Modeling, Neural Networks, Generative AI.
Cloud & DevOps: AWS, Docker, Kubernetes, MLflow, Hugging Face, MLOps.
HPC & version control tools: SLURM, Conda, Git, GitHub.

Work Experience:

Meta Reality Labs — **New York, NY**
Research Scientist Intern — May 2024 – August 2024
- Applied deep learning and statistical modeling 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, achieving 96% rank-1 accuracy.
- Built an Angular-based front-end search interface and deployed to AWS cloud infrastructure.
- Increased professional photo sales revenue by 33% through optimized retrieval models.

AT&T Labs — **Middletown, NJ**
Applied Scientist Intern — June 2022 – August 2022
- Developed and deployed a time series forecasting model for national cell tower traffic.
- Improved traffic prediction accuracy by 36% using Bayesian methods.

Intel Corporation — **Hillsboro, OR**
Software engineer — July 2013 – July 2018
- Built full-stack Windows applications to automate statistical analysis of large-scale production data.
- Applied survival analysis to optimize product testing, reducing costs by 40%.

Research Experience:

Carnegie Mellon University — **Pittsburgh, PA**
Ph.D. Researcher — September 2020 – January 2025
- Developed statistical and ML models to infer the neural network structure of the brain from neuronal recordings.

New Jersey Institute of Technology — **Newark, NJ**
Masters Researcher — May 2011 – May 2013
- Built bio-physical neuronal models to understand self-regulation mechanisms in neural circuits.

Publications:

- Olarinre, M., Siegle, J., Kass, R. "Relative timing and coupling of neural population bursts in large-scale recordings from multiple neuron populations." Journal of Neurophysiology Preprint.
- 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 — March 2020
- National GEM Consortium University Fellow — July 2018