

Mark Agrios

Computational Biologist and Machine Learning/AI Researcher.

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EDUCATION

Northwestern University — *PhD. Computational Neuroscience*

Expected August 2025

College of William & Mary — *B.S. Mathematics, Neuroscience*

Spring 2019

PROFESSIONAL EXPERIENCE

Doctoral Computational Neuroscientist — Northwestern University Department of Neurobiology August 2020 - present

- * Developed custom software and machine learning/AI architectures for large-scale neural, genetic, and behavioral datasets (>500TB).
- * Designed and automated data pipelines on high performance computing clusters.
- * Managed multiple diverse and complex projects, overseeing deliverables, scope, plan, and addressing issues to ensure key milestones were met.
- * Collaborated on teams of clinicians, engineers, and data scientists.
- * Authored multiple publications in high-impact journals, writing manuscripts and designing compelling graphics.
- * Volunteered as teacher/lecturer for biology, scientific writing, and data science classes at the graduate, undergraduate, and high school levels.

Research Data Scientist — Northwestern University Department of Neurobiology August 2019 - August 2020

- * Developed, optimized, and automated data processing pipelines for high-throughput analysis of neural datasets, improving workflow efficiency and reproducibility.
- * Created data visualizations for complex datasets and modeling output to effectively communicate complex findings to both technical and non-technical audiences.

SKILLS (6+ years of exp.)

- * Statistics
- * Bioinformatics
- * Data science
- * Predictive modeling
- * Computational biology
- * Machine learning/AI
- * High performance computing
- * Software development
- * Data visualization
- * Topological data analysis

LANGUAGES/PACKAGES (6+ years of exp.)

- * Python
- * R
- * Javascript
- * MATLAB
- * Tensorflow
- * PyTorch
- * NumPy
- * Pandas
- * Matplotlib
- * Git
- * Bash
- * SLURM

PUBLICATIONS

Full list available at
<https://orcid.org/0000-0002-3792-4843>