ERIC M. JOHNSON, PH.D.
RESUME

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Expert computational scientist with a proven track record in analyzing complex systems. Passionate educator adept at translating specialized research into accessible knowledge for diverse audiences.

EDUCATION

Ph.D. in Applied Mathematics   Evanston, Illinois
Northwestern University, ESAM   *March 2022*

M.S. in Applied Mathematics   Evanston, Illinois
Northwestern University, ESAM   *May 2016*

B.S. *cum laude* in Mathematics and Physics   Abu Dhabi, UAE
New York University Abu Dhabi   *June 2014*

EXPERIENCE

Mani and Pincus Groups: Postdoctoral Researcher
Northwestern University and The University of Chicago   *April 2022 - Present*
Developed novel computational tools for the analysis of scRNA-seq data in S. cerevisiae.

Kath Research Group: Doctoral Candidate
Engineering Sciences and Applied Math Dept. at Northwestern University   *September 2015 - March 2022*
Developed methods and theory for a principled, unsupervised approach to high-dimensional data analysis.

What Do Your Data Say?: Instructor, Creator
Northwestern University   *Fall '17, '18, '20; Winter '20; Spring '22*
Developed a graduate-level course on introductory statistics and data analysis.

Algorithms Team: Applied Statistics Consultant
Quantum-Si   *April 2021 - December 2022*
*Design and Implementation of statistical algorithms for **Time Domain Sequencing^(TM)***

The Math Place: Lead Mathematics Tutor
Northwestern University School of Professional Studies   *August 2016 - August 2021*
Tutored Hundreds of Students in Physics, Math, and Economics

Holland Lab: Research Scientist
Courant Institute for Mathematics at New York University   *August 2014 - August 2015*
Developed and maintained methods and equipment for making meteorological measurements in the field.

Vinals Group: Undergraduate Research Fellow
University of Minnesota Department of Physics and Astronomy   *Summer 2013*
Adding Delay into Stochastic Simulation Algorithms for Modeling Genetic Regulatory Networks

SKILLS

10+ years of building custom computational tools using a myriad of programming languages and frameworks.

Statistical Modeling & Data Science: Optimization, Bayesian Inference, MCMC, Dimensionality Reduction, Regression, Regularization, Clustering, Unsupervised Learning, Feature Engineering

Programming: Python, R, C++, MATLAB, scikit-learn, HPC, numba, cython, CUDA, Seurat, Scanpy, Git, Bioconductor, Biopython, Jupyter, RMarkdown, Seaborn, ggplot2, Matplotlib

Bioinformatics & Biology: Next-Gen Sequencing, single-cell -omics, RNA-seq, ChIP-seq, BLAST, SAMtools, GWAS, GSEA, Network Analysis, Systems Biology