WILL FINDLEY

DATA SCIENCE / MACHINE LEARNING

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Education

NYU

Ph.D. in Biophysics and Neurophysiology **2013**

Used statistical learning algorithms (independent and principle component analysis, linear regression analysis, multiple comparison statistics) and signal processing techniques (filtering, spectral analysis, epoched data analysis) to analyze inverse problem solutions to modeled biophysics of hundreds of gigabytes of human brain magnetic activity. Published work in *PNAS* and *Nature Neuroscience*. NIH grant, h-index: 5

Graduate quantitative coursework taken at Courant in statistics, bioinformatics, numerical linear algebra, numerical differential equations, and quantitative biological modeling, in addition to neuroscience coursework.

Caltech

B.S. in Engineering and Applied Science **2003**

Quantitative coursework included neural networks, econometrics, linear algebra, probability, statistics, ordinary/partial differential equations, complex analysis, physics including thermodynamics and quantum mechanics, many mechanical engineering courses.

Experience

Dalton

Computer Science and Data Science Instructor **2011-2015**

Taught various computational courses, including: "Data Science", following *The Elements of Statistical Learning* by Hastie et al. and *Probability Theory* by Jaynes; "Scientific Argument Analysis", critiquing structured data analysis and multiple comparison statistical significance in current *Nature* and *Science* papers; "Computational Informatics", following *Introduction to Algorithms* by Cormen et al.

Science Research Program Co-Director **2011-2015**

Coordinated roughly 50 student research projects, and personally mentored half-a-dozen. Provided intellectual support to scientific literature analysis for outside lab work and validated student research output. Research, including by personal mentees, was honored by Intel and Siemens and presented at professional conferences.

NYU Medical Center

Research Assistant **2003-2011**

Worked in Bellevue Hospital at the Center for Neuromagnetism under Dr. Rodolfo Llinás, a member of the National Academy of Sciences with an h-index of 115. Work was similar to thesis work described for my Ph.D.

Projects

False Positives

Developed a novel multiple comparison controlling procedure to determine q-values and control the false discovery rate.

Kaggle Techniques

Used kaggle competitions as exercises to demonstrate technical understanding espoused below.

Evolving Brains

Researching evolving neural nets to preserve correlation in inputs and optimize resource management through selective pressure.

Technical

Python	R	Matlab
Java	Hadoop	SQL