DIANA HALL, MS
Statistician, dianaransomhall@yahoo.com

Experience

DataKind, Code for America, San Francisco, CA 07/2018-present

Volunteer

- Building data dashboards, visualizations in cloud: Tableau, plotly, SQL, Python, Github, AWS

Institute for Genomic Medicine Columbia University, New York, NY 01/2015-03/2018

Statistician, 2015-2018

- Authored open source R-package, CRAN R-Package meaRTools
- built GUI to interface with R-package analysis: Java.
- Created Pipeline: bash scripts convert files, run R and create analysis output pdf
- Analysis of RNA data, MEA data for differential expression between genotypes

Institute for Human Genetics, Durham, NC 01/2014-12/2014

Statistician, 2015-2018

- Analysis of cell assays
- Created Pipeline: bash scripts convert files, run R and create analysis output pdf

Environmental Protection Agency, Research Triangle Park, NC

Statistician 2013-2015

- Constructed pipeline: ms-dos scripts to convert file types and run analysis
- Built linear model to detect difference in power spectrum
- Maintained data base of experimental data.

Research Triangle Institute, Research Triangle Park, NC

Statistician 2011-2012

- Clinical trial data analysis using SAS, meta-analysis

Dr. Jones Lab, University of North Carolina-Chapel Hill, NC

Research Assistant, 2010-2011

- Masters Thesis on differential expression of illumina micro-expression counts in plants.

Software Tools

R, Java, Python, AWS, Github (https://github.com/dianaransomhall)

Education

MS, Statistics, University of North Carolina at Chapel Hill, Chapel Hill, NC	December 2011
BA, Mathematics, University of Chicago, Chicago, IL	March 2005

Employment Chronology

January 2015-March 2018	3 years	Statistician	Institute for Genomic Medicine at Columbia University
Jan 2014-Jan 2015	9 months	Statistician	Center for Human Genome Variation, Duke University
2013-2015	2 years	Statistician	Environmental Protection Agency, Toxicology Division, Lab of Dr. Tim Shafer
Nov 2011 – Nov 2012	1 year	Statistician	RTI Health Solutions RTI International, Research Triangle Park, NC
Sept 2010 – Sept 2011	1 year	Research Assistant	Dr. Corbin Jones, Professor of Biology at University of North Carolina Chapel Hill, NC
2011	5 months	Teaching Fellow	Department of Statistics and Operations Research University of North Carolina Chapel Hill, NC

Publications

meaRtools: An R package for the analysis of neuronal networks recorded on microelectrode arrays. Gelfman S, Wang Q, Lu YF, Hall D, Bostick CD, Dhindsa R, Halvorsen M, McSweeney KM, Cotterill E, Edinburgh T, Beaumont MA, Frankel WN, Petrovski S, Allen AS, Boland MJ, Goldstein DB, Eglen SJ. PLoS Comput Biol. 2018 Oct 1;14(10):e1006506. doi: 10.1371/journal.pcbi.1006506. eCollection 2018 Oct. PMID: 30273353	Oct 2018
“Editor's Highlight: Evaluation of a Microelectrode Array-Based Assay for Neural Network Ontogeny Using Training Set Chemicals.” Brown JP, Hall D, Frank CL, Wallace K, Mundy WR, Shafer TJ. Toxicol Sci. 2016 Nov;154(1):126-139. Epub 2016 Aug 4	Nov 2016
"Characterization of Early Cortical Neural Network Development in Multiwell Microelectrode Array Plates." Cotterill E, Hall D, Wallace K, Mundy WR, Eglen SJ, Shafer TJ Journal of Biomolecular Screening.	June 2016
"In vitro screening of silver nanoparticles and ionic silver using neural networks yields differential effects on spontaneous activity and pharmacological responses." Jenna Strickland, William R. Lefew, James Crooks, Diana Hall, Jayna NR Ortenzio, Kevin Dreher & Timothy J. Shafer .Toxicology, May 2016	May 2016
“Metal Oxide Nanoparticles Alter Spontaneous Activity and GABAergic Responses in Cortical Neural Networks In Vitro” Strickland JD, Lefew WR, Crooks J, Hall D, Ortenzio JN, Dreher K, Shafer TJ. Nanotoxicology. 2016;10(5):619-28.	March 2016
“Optogenetic stimulation of multiwell MEA plates for neural and cardiac applications.” Isaac P. Clements ; Daniel C. Millard ; Anthony M. Nicolini ; Amanda J. Preyer ; Robert Grier ; Andrew Heckerling ; Richard A. Blum ; Phillip Tyler ; K. M. McSweeney ; Yi-Fan Lu ; Diana Hall ; James D. Ross. Proc. SPIE 9690, Clinical and Translational Neurophotonics; Neural Imaging and Sensing; and Optogenetics and Optical Manipulation, 96902C (March 9, 2016);	March 2016