Dillon Aberasturi

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SUMMARY

Data Scientist with experience in **Educating, Researching, and Programming.** A successful track record of developing and implementing statistical methods and simulations. Experienced in both a wide variety of statistical fields, including **Categorical Data Analysis and Machine Learning**, and strong knowledge of computer languages, including **R and SAS**. Taught and did research for University of Arizona and University of Nevada, Reno.

Broad Knowledge of Statistics:	Over 7 years of courses in statistics, including popular fields: Categorical Data Analysis, Bayesian Statistics, Machine Learning, Time Series and Hierarchical Clustering. Extensive education has provided a broad enough knowledge to handle vast majority of problems requiring a Statistician.
Experienced Programmer:	Over 7 years advanced programming experience with R. Statistical softwares include SAS, Matlab, SPSS. Experience in wide-array of computer languages and capable to learn new languages very quickly Possess both the theoretical statistical knowledge and practical programming skills necessary for modern statistical work.
Experience Teaching Statistical Principles:	Years of experience explaining statistical and mathematical concepts to beginning students as a teaching assistant. High evaluations from past students demonstrate ability to break things down to be easily understood by a wide variety of learners, in both classroom and professional setting.

EDUCATION

Ph.D. Candidate in Statistics, **University of Arizona**, Tucson, AZ
GPA: 4.000
August, 2017-Present
Committee:
Dr. Walt Piegorsch, Dr. Yves Lussier, Dr. Edward Bedrick, Dr. Lingling An

Master of Science, Statistics, **University of Nevada**, Reno, NV
Thesis Title: Self-similarity of Random Aggregation Trees in Hyperbolic Spaces
GPA: 3.756
June, 2017
Committee:
Dr. Ilya Zaliapin, Dr. Deena Schmidt, Dr. Anna Panorska

Bachelor of Science, Statistics and Biochemistry, **University of Nevada**, Reno, NV
Magna Cum Laude
GPA: 3.976
May, 2015

PROGRAMMING LANGUAGES | STATISTICAL TOPICS

- Machine Learning
- Bayesian Statistics
- Design of Experiments
- R
- SAS
- LaTex
- SPSS
- Categorical Data Analysis
- Correlation within Binary Data

TEACHING EXPERIENCE

UNIVERSITY OF ARIZONA, Tucson, AZ **August 2018 – December 2018**
Statistics Department
Teaching Assistant

- Instructed 3 discussion sections with approximately 30 students in each section in undergraduate-level statistics and methodologies

UNIVERSITY OF NEVADA, Reno, NV **August 2015 – June 2017**
Mathematics Department
Teaching Assistant

- For each semester, graded quizzes and exams, planned lessons, and taught six discussion sections with about 30 students per section.
- Substitute taught lectures for teachers.
- Taught Pre-calculus and Trigonometry and consistently received high evaluations from students

RESEARCH EXPERIENCE

UNIVERSITY OF ARIZONA, Tucson, AZ **December 2018 – Present**
Dr. Yves Lussier Lab **August 2017 - August 2018**
Research Assistant

- Created a new manner to test interactions between two binary variables through an extension of meta-analysis in contingency tables
- Compared and contrasted experimental designs for clustered data

UNIVERSITY OF NEVADA, Reno, NV **February 2016 - June 2017**
Dr. Zaliapin
Master's Thesis

- Performed probabilistic and simulation analyses of random self-similar trees
- Studied Hyperbolic Geometry focusing specifically on 2-D models such as the Half-Plane model and Poincare's Disc.
- Established novel properties of random trees in hyperbolic space
- Extensively utilized the software Matlab for tree and hyperbolic space analyses

UNIVERSITY OF NEVADA, Reno, NV **June 2012 - August 2013**
Dr. Schooley
Biochemistry Department
Undergraduate Thesis

- Measured the effects of N-terminal truncations of the diuretic hormone on urine production in *Manduca sexta.*
- Grew, handled and maintained live human embryonic tissue cultures.
- Trained to utilize sterile hood environment.

PUBLICATIONS

- **Aberasturi, D.***, et al.* 'Single-subject studies'-derived analyses unveil altered biomechanisms between very small cohorts: implications for rare diseases. *Bioinformatics* 2021;37(Supplement_1):i67-i75.
- Li, Haiquan, Fan, Jungwei, Vitali, Francesca, Berghout, Joanne, Li, Jianrong, Lussier, Yves, **Aberasturi, Dillon**, et al. "Novel Disease Syndromes Unveiled by Integrative Multiscale Network Analysis of Diseases

Sharing Molecular Effectors and Comorbidities." *BMC Medical Genomics*, vol. 11, no. S6, 2018, doi:10.1186/s12920-018-0428-9.

- Li, Qike, Rachid, Samir, **Aberasturi, Dillon**, Berghout, Joanne, Li, Haiquan, et al. "Interpretation of 'Omics Dynamics in a Single Subject Using Local Estimates of Dispersion between Two Transcriptomes." 2018, doi:10.1101/405332.
- Schissler, Alfred Grant, **Aberasturi, Dillon**, Kenost, Colleen, and Lussier, Yves "A Single-Subject Method to Detect Pathways Enriched With Alternatively Spliced Genes." *Frontiers in Genetics*, vol. 10, 2019, doi:10.3389/fgene.2019.00414.
- **Aberasturi, Dillon**. Self-Similarity of Random Aggregation Trees in Hyperbolic Spaces, University of Nevada Reno, ScholarWorks/University of Nevada Reno, 2017, http://hdl.handle.net/11714/2053.

COMMUNITY INVOLVEMENT

Graduate Student Representative,
Statistics and Data Science Graduate Interdisciplinary Program
University of Arizona
January, 2020 - Present

Treasurer,
American Mathematics Society Chapter
University of Arizona,
October 2019 – Present

President,
Mu-Sigma-Rho University of Arizona Chapter
University of Arizona
February 2021 - Present

AFFILIATED ASSOCIATIONS

Arizona Alpha Chapter of Mu Sigma Rho
the National Honor Society in Statistics
Member since January 2021 - Present

American Statistical Association (ASA)
Member since September 2021 – Present

Western North American Region of the International Biometric Society (WNAR)
Member since December 03, 2021 - Present