Daniel **Alhassan**

PhD Candidate

Department of Mathematics and Statistics Missouri University of Science and Technology

+1 504 931 7691 | danhmed@gmail.com | dalhassan.netlify.app | 0000-0003-0944-5818 | DanielAlhassan
| daniel-alhassan-41981331

Research Interests

Statistical Genomics |

STATISTICAL METHODS FOR DETECTING DIFFERENTIAL DNA METHYLATION REGION

Survival Analysis |

MODELING EVENT HISTORY DATA WITH A CURE FRACTION

Inter-disciplinary Research |

STATISTICAL APPLICATIONS IN HEALTH, ENGINEERING AND SOCIAL SCIENCE

Statistical Machine Learning |

METHODS THAT COMBINE CLASSICAL STATISTICAL WITH MACHINE LEARNING

Work Experience

Statistical Consultant   *Rolla - MO*

MISSOURI S&T ASA STUDENT CHAPTER   *August 2018 — Present*

- Provide statistical data analysis guidelines to student community
- Assist students with with R, JMP, Minitab and SAS
- Help students with experimental design issues at the planning stages of project work

Instructor   *Rolla - MO*

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY   *August 2018 — Present*

- Applied Engineering Statistics (multiple offerings)— Textbook: Applied Statistics and Probability for Engineers by Douglas Montgomery et al

Instructor   *Rolla - MO*

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY   *2021 —*

- Introduction to Biostatistics — Textbook: Statistics for the Life Sciences by Samuels and Witmer

Graduate Teaching Assistant   *Rolla - MO*

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY   *August 2017 — May 2018*

- Calculus I & II

Graduate Teaching Assistant   *New Orleans - LA*

UNIVERSITY OF NEW ORLEANS   *August 2015 — May 2016*

- Calculus I, II & III

Instructor   *New Orleans - LA*

UNIVERSITY OF NEW ORLEANS   *August 2016 — May 2017*

- Elementary Statistics & Statistics for Business and Economics

Education

Ph.D. Mathematics (Statistics Emphasis)   *Rolla, MO*

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY   *2017 —*

- Advisors: Dr. Akim Adekpedjou & Dr. Gayla Olbricht
- GPA: 3.93

M.S. Mathematics   *New Orleans*

UNIVERSITY OF NEW ORLEANS   *2015 — 2017*

- GPA: 3.9

B.Sc. Actuarial Science *Kumasi Ghana*

Kwame Nkrumah University of Science and Technology *2009 — 2013*

- Thesis: Estimation of Beta and the Relationship Between Share Return and Beta in the Emerging Market of Ghana. (coauthored)
- Advisor: Dr. Lord Mensah

Publications

1. Alhassan, D., Olbricht, G., & Adekpedjou, A. (2022). *Differential methylation region detection via an array-adaptive normalized kernel-weighted model*.

2. Alhassan, D., Olbricht, G., Adekpedjou, A., & Agbozo, E. (2022). *idDMR: Methylation analysis methods for illumina microarray data*. `https://github.com/DanielAlhassan/idDMR`

3. Agbozo, E., Alhassan, D., & Spassov, K. (2018). Personal data and privacy barriers to e-government adoption, implementation and development in sub-saharan africa. *International Conference on Electronic Governance and Open Society: Challenges in Eurasia*, 82–91.

4. Nam, S., Hillyer, M. B., & Condon, B. D. (2020). Method for identifying the triple transition (glass transition-dehydration-crystallization) of amorphous cellulose in cotton. *Carbohydrate Polymers*, *228*, 115374.

Manuscripts in Preparation

A Normalized Kernel-weighted Approach to Identifying Differential Methylation Regions in the Human Genome *2022*

- (with G. Olbricht and A. Adekpedjou)

Manuscripts in Preparation

Differential Methylation Region Detection via an Array-adaptive Normalized Kernel-weighted Model *2022*

- (with G. Olbricht and A. Adekpedjou)

Conferences Attended

Innovation in Teaching and Learning Conference *Missouri S & T*

March, 2022

Conference on Statistical Practice *New Orleans LA*

February, 2019

Talks and Workshops

Talk *Graduate Seminar at Missouri S&T*

Differential Methylation Region Detection via an Array-adaptive Normalized Kernel-weighted Model *April 2022*

Workshop *Missouri S & T ASA Student Chapter*

LaTeX Workshop Sessions I & II *2018*

- Led a two-day workshop teaching graduate students how to typset with Latex

Skills

Programming Languages & Other Tools

Python, R, LaTeX, Markdown, RMarkdown, Git, RStudio, Excel, Outlook, OneNote, PowerPoint, Word

Awards and Honors

Midwestern Association of Graduate Schools (MAGS) *Missouri S&T*

Excellence in Teaching Award Nominee *2021*

- Each department nominates one graduate student for this award

Department of Mathematics & Statistics *Missouri S&T*

GTA Teaching Excellence Award *2020*

Department of Mathematics & Statistics   *Missouri S&T*

GTA Teaching Excellence Award   *2018*

Department of Mathematics   *University of New Orleans*

Graduate Mathematics Faculty Award   *2017*

Certifications

American Statistical Association   *ASA*

Graduate Statistician   *2020*

IBM & Coursera   *Online*

IBM Data Science Professional Certificate   *2019*

DataCamp   *Online*

Data Scientist with R   *2019*