

Mahbubul Hasan

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SKILLS

PROGRAMMING

R and Jupyter Notebook
SAS, SQL
MATLAB, AMOS, Python

MACHINE LEARNING

Natural Language Processing(NLP)
Neural Network
Regression
Support Vector Machines(SVM)
Naive Bayes
K-Nearest Neighbors(KNN)
Decision Trees
Cluster Analyses

SOFTWARE

PostgreSQL and MySQL
Amazon Web Services
Hadoop
Git and Github
MongoDB
LWIC
Tableau, PowerBI
MS-Excel Pivot Tables, Hlookup, Vlookup

EDUCATION

PHD, APPLIED STATISTICS

UNIVERSITY OF MEMPHIS

May 2023 | Memphis, TN

Project: **Applied Statistics and ML algorithm to analyze behavioral and healthcare data.**

DOUBLE MS, ED.PSYCH & RESEARCH, & INFORMATION SYSTEMS

UNIVERSITY OF MEMPHIS

May 2018 | Memphis, TN

Certificate in qualitative and quantitative research

LINKS

Github:// [shaon11579](#)
LinkedIn:// [m-hasan](#)
Twitter:// [@imahbubulhasan](#)

EXPERIENCE

THE UNIVERSITY OF MEMPHIS | RESEARCH ASSISTANT

Jan 2021 – Present | Memphis, TN

- Fulfilled all data science duties for a proposed a two-step screening approach to screen high-dimensional epigenetic data (450k CpGs) from Isle of Wight birth cohort study (three-generational data, UK) in a NSF funded project.
- Classified pregnant mothers into groups with similar socioeconomic status using k-means cluster analysis.
- Developed algorithms to predict how pregnancy (yes/no) effect the DNAm of the pregnancy and birth using survival analysis linear regression.

UNIVERSITY OF MEMPHIS | GSA PRESIDENT (RESEARCH/DEVELOPMENT/PROJECT MANAGER)

May 2017 – Feb 2021 | Memphis, TN

- Initiated and managed tracking systems used for the graduate student professional development project, saving \$125,000 on the overall project through a 55% increase of the enrollment.
- Chaired committees of 12 and presented marketing plans to an audience of 30 to 60 students at monthly university senate meetings open to all 4,000 community members.
- Managed project of graduate travel funding worth \$95000 resulting in the elimination of human inspection, saving \$200,000 to \$350,000 per year and this includes 15% increase in allotment.
- Scraped, cleaned, and assimilated survey data as inputs to revenue and program growth up to 34%, and visualized research models of program growth, development, cost, and other factors by using statistical and machine learning algorithms.

SMITH AND NEPHEW RESEARCH/ANALYST INTERN

May 2019 – June 2019 | Memphis, TN

- **Forecasting Bias and Inventory Growth**
 - Developed statistical and machine learning models to fix forecasting biases
 - Managed to gain revenue up to \$300,000 by adjusting forecasting model
 - Built dashboard and financial model to display and assess market potential and expected cash flow of mid south tech hub

SOCIAL MEDIA LAB AT UM | RESEARCH ASSISTANT/DATA ANALYST

Aug 2016 – May 2017 | Memphis, TN

- Designed Qualitative and Quantitative survey and analyzed survey data to improve college adjustment, and combat loneliness of adolescents
- Presented research outcome to 4 international conferences.

SPIRIT LAB | RESEARCH ASSISTANT

Aug 2014 – May 2016 | Memphis, TN

- Designed and developed qualitative research projects for publication.
- Reviewed and evaluated 40-50 research articles bi-weekly and made and contribute to research team to design and develop new ideas.
- Led lab manager and liaison with key lab sponsors, and presented research outcomes to 8 national and international premium conferences.