Md Yousuf Ali

Silver spring, Maryland

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SUMMARY

Pharmaceutical Scientist by training with a strong aptitude for learning new skills to solve the problem related to data. Bringing exceptional Research, CDISC Data Standards, Programming, Statistical Analysis, Machine Learning, and Deep Learning skills.

SKILLS

- R, R Shiny, RStudio Server, RStudio Connect, Rmarkdown, Python, SQL, Tableau, AWS, Google Cloud, Git/GitHub, Docker, Linux/Unix shell scripting, HTML, CSS, JavaScript
- Standard for Exchange Nonclinical Data (SEND) Wrangling and Visualization (dplyr, data.table, ggplot2)
- Software - SEND explorer, Janus Nonclinical, GraphPad Prism, ImageJ, SPSS, ChemDraw, Endnote, Microsoft office, PowerPoint
- Molecular Biology - Cell Culture, Western Blot, ELISA, Gene Knockdown, RNA Extraction

PROFESSIONAL EXPERIENCE

ORISE Postdoctoral Fellow
Advisor: Kevin Snyder, Ph.D.
OND/IO/Pharmacology Toxicology Team
Food and Drug Administration (FDA)
Silver Spring, MD

03/2020 - Current

- Built an R Shiny web app, toxSummary, for summarization and visualization of nonclinical/toxicological studies. App is designed to facilitate holistic evaluation of the drug safety by integrating the results of multiple toxicology studies in the context of a clinical dosing regimen. Internally Deployed on FDA server. Also, deployed on public server at https://phuse-org.shinyapps.io/toxSummary/. App demonstration can be found at https://www.youtube.com/watch?v=56V2yxPTWtk
- Building Bayesian Model to incorporate historical control data for assessing treatment effect in nonclinical study. Project include an R shiny app for non-programmer toxicologist.
- Building R package (sendigR), in collaboration with BioCelerate, which will help data scientist to analyze and visualize nonclinical historical control data. An R shiny app also included in the package to demonstrate how package works. Project can be found on GitHub: https://github.com/phuse-org/BioCelerate/tree/master. R shiny app deployed on PHUSE server: https://phuse-org.shinyapps.io/sendigR/

Research Assistant
Advisor: Margaret Weis, Ph.D.
Department of Pharmaceutical Sciences

01/2015 - 02/2020

Texas Tech University Health Sciences Center, Amarillo, TX
- Designed and conducted a project that showed cytokine-stimulated iNOS expression requires long chain fatty acyl-CoA synthetase (ACSL) in brain ischemic model.

PROJECTS

Finding Donors for CharityML – Machine Learning [SVM, Gradient Boosting, Scikit-learn]
- Implemented supervised algorithms to identify people most likely to donate with accuracy 0.87

Sentiment Analysis Web App Deep Learning [RNN, PyTorch, AWS, SageMaker]
- Trained recurrent neural network and deployed a model using amazon sagemaker. The model was used to predict the sentiment of the entered movie review

Communicate Data Finding – Data Analysis [Matplotlib, Seaborn, Pandas, Numpy]
- Created more than 60 plots in univariate, bivariate, and multivariate category for exploratory data analysis (EDA)

Startups using AI for drug discovery - Towards Data Science [Web scraping, Blog]
- Gathered the data and created a map of startups using Artificial Intelligence(AI) for drug discovery

Setup Bioconductor and learn Bioinformatics - posted on YouTube [Docker, R, Bioinformatics]
- Showed how to setup Bioconductor with docker for learning bioinformatics

EDUCATION

	GPA	Year
Ph.D. in Pharmaceutical Sciences Texas Tech University Health Sciences Center, Amarillo, TX	3.97	02/2020
Masters in Pharmaceutical Chemistry University of Dhaka, Dhaka, Bangladesh	3.69	2010
Bachelor of Pharmacy University of Dhaka, Dhaka, Bangladesh	3.85	2008

ONLINE CERTIFICATIONS

CDISC Data Standards	04/2020
Bioconductor for Genomic Data Science - Coursera	06/2019 – 08/2019
Deep Learning Nanodegree - Udacity	03/2019 - 06/2019
Data Scientist Nanodegree - Udacity	11/2018 - 03/2019
Data Analyst Nanodegree - Udacity	09/2018 - 12/2018
Statistics with R Specialization (four courses) - Duke University - Coursera	03/2018 - 10/2018
Inferential Statistics - University of Amsterdam - Coursera	10/2017 - 01/2018