Tazkera Haque, M.S.

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Tazkera Haque | LinkedIn

Portfolio Website

Summary

- Experienced medical data scientist; proficient in analyzing healthcare datasets with Matplotlib and Seaborn, adept at identifying and conveying key data trends, skilled in leveraging Python's Scikit-learn for feature optimization, and seasoned in constructing and fine-tuning advanced models including Logistic Regression, SVMs, and Deep Learning with TensorFlow/Keras API

- Accomplished researcher holding a Master's in Astrophysics, complemented by a rich background in instruction and pedagogy; advanced proficiency in Python programming, web development using CSS, HTML, and JavaScript, and is adept at crafting content and design programming curriculum for game development.

- Cross functional collaborator with theoretical and applied knowledge of statistical analysis and machine learning as evidenced by 3 collaborations resulting in 1 publication on Double-degenerate Carbon–Oxygen and Oxygen–Neon White Dwarf Mergers in the Astrophysical Journal

- Demonstrated expertise in mentorship, underpinned by robust communication abilities and project management skills in the realm of data science; notably mentored 35 emerging professionals in Machine Learning and Python Game Development at Coding With Kids

Work Experience

Leadership Experience in Data Science & Machine Learning:

Gained as a Medical Data Scientist at North America MedTech Group (NY, USA and remote)

- Conducted comprehensive exploratory data analysis initiatives, leveraging tools like Python's Matplotlib and Seaborn to provide strategic insights into complex healthcare datasets.
- Pioneered the identification and communication of key data patterns, ensuring stakeholder alignment through effective visual representation of intricate data trends.
- Instituted a robust system for feature selection using Scikit-learn, setting the standard for identifying vital variables that power predictive modeling.

- Directed and supervised the construction of predictive models, incorporating a diverse set of techniques including Logistic Regression, Support Vector Machines, Decision Trees, Random Forests, XGboost and Deep Learning Models with TensorFlow and Keras API.

Leadership and Mentoring in Data Science & Programming Education:
Accrued through roles as Online Coding Instructor and Content Team Lead Instructor Mentor at Coding with Kids (WA, USA and remote).

- Proficiently communicated with diverse scientific teams, complimenting the development and deployment of real-time products. This is underscored by my work in guiding K-12 students through game development and creative projects.
- Renowned as a rapid innovator and adept learner with a distinctive capability for self-instruction and result-oriented delivery.
- Demonstrated excellence in project management, specifically in the training domain, evidenced by my engagement with incoming instructors. My mentorship and timely feedback, both pre and post their inaugural lessons, coupled with sustained support, culminated in the successful onboarding of 35 instructors.

Research and development expertise in Physics:

Gained as a Graduate Teaching and Research Assistant at University of Massachusetts Dartmouth - Dartmouth and University of Massachusetts, Amherst, MA.

- Mentorship and training expertise in the field of Physics as demonstrated by facilitating science communication as evidenced by teaching 4 courses including Classical Mechanics and Quantum Mechanics to over 100 students over the course of 4 years.
- Strong product development experience as demonstrated by leading the product and data team as evidenced by creating a novel approach on simulating a new type of ultra faint Supernovae, as well creating synthetic halo profiles to understand the origin of the Cosmos
- Researcher with business and financial acumen as evidenced by securing a grant funding supported by National Science Foundation on Supernovae studies to pave the research on Extreme Science and Engineering Discovery Environment (XSEDE) Stampede 2 supercomputer

Education

M.S. in Physics from University of Massachusetts Dartmouth - Dartmouth, MA, USA
B. S. in Physics from BRAC University, Bangladesh

Techniques, Technical Skills & Documentation

Big Data Analytics	SVM	Scikit-Learn
HPC	DeepLearning	XGboost
Machine Learning	Neural Network	HTML/CSS/JS
Logistic regression	TensorFlow/Keras	Python

Presentation Skills	Collaboration Skills	Management
Communication	Technical Writing	Leadership

Affiliations, Certifications, Awards & Hobbies

- Google Data Analytics Professional Certificate, August 2023
- Supervised Machine Learning: Regression and Classification, DeepLearning AI, 2023
- Advanced Learning Algorithms, DeepLearning AI, 2023
- Chancellor's Centennial Scholarship Award, UMASSD,2017
- Vice Chancellor's Medal for the Highest Distinction in the Department of Mathematics and Natural Sciences, BRACU, 2015
- Team Leader at International Astronomy Olympiad, Poland, 2011
- Traveling to diverse destinations with my husband and baby girl