**Shyam Adhikari**

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**EDUCATION**

**University of New Mexico** Expected Graduation Date: May 2021

Bachelor of Mathematics with a concentration in Applied Mathematics || Minor: Chemistry || **GPA: 3.99**

**Baltimore City Community College**, General Engineering July 2017 – Nov 2018

**Western Illinois University**, Engineering Technology Jan 2017 - May 2017

**Relevant coursework:** Linear Algebra with Applications, Numerical Computing, Applied Matrix Theory, Calculus I -III, Ordinary Differential Equations, Elements of Math Statistics and Probability, Vector Analysis, and Programming Fundamentals.

**TECHNICAL SKILLS**

**Programming Languages:** Python, MATLAB, Octave, JavaScript, Html, and CSS

**Skills:** Data Analysis, Machine Learning, Deep Learning, Natural Language Processing, and Data Science

**Tools:** Scikit-Learn, TensorFlow, PyTorch, Git/GitHub, Google Cloud Platform, and Google Colaboratory

**PERSONAL PROJECTS**

**Facebook Friend Recommendation** (<https://github.com/adshyam/Facebook_Friend_Recommendation> )

* Developed a machine learning model that predicts if given pair/pairs of nodes [friends] have a connection.
* Utilized Sklearn, Pandas, and NumPy libraries for data pre-processing and visualization using data exploratory techniques.
* Achieved F1 score of 0.801136 on test data applying XGBoost and F1 score of 0.80414 on test data using Random Forest machine learning algorithm.

**Diabetes Prediction** ( [https://github.com/adshyam/Diabetes\_Prediction\_Machine\_Learning-](https://github.com/adshyam/Diabetes_Prediction_Machine_Learning-%20) )

* Developed a machine learning model to predict the probabilities of a person having diabetes.
* Applied Random Forest Classifier algorithm and achieved an accuracy score of 0.793 applying hyperparameter tuning using a randomized search cross- validation method.
* Created a web application for this project using Django and Python.

**Quora Question Similarity Problem** (<https://github.com/adshyam/Quora-Question-Similarity>)

* Worked with TF\_IDF text vectorization and learned the concept of Bag of Words.
* Applied Random Forest Classifier algorithm to predict if given pairs of Quora a question are similar or not.
* Achieved accuracy score of 0.99 with a log loss of 0.00025.

**Hyperbolic Partial Differential Equation (** <https://github.com/adshyam/Hyperbolic_Partial_Differential_Equation> )

* Implemented an explicitly finite difference and center difference algorithm using MATLAB to solve wave equation problems.

**PROFESSIONAL EXPERIENCE**

**Tutor, Department of Mathematics, University of New Mexico**  May 2019 – Present

* Tutored Calculus I- III, Linear Algebra, Ordinary Differential Equations, Statistics 345, Physics I-II, General Chemistry-II Organic Chemistry I-II, MATLAB, and Python.

**Teaching Assistant, Engineering Student Success Center, University New Mexico** May 2020 – August 2020

* TA for MATLAB and pre-calculus for high school and college students.

**LEADERSHIP, ACADEMIC AWARDS AND HONORS**

* Amigo Scholarship, University of New Mexico January 2019 - Present
* President, Baltimore City Community College Mathematics and Engineering Group July 2018 – Nov. 2018
* 1st place, Intercollege Mathematics competition, Mu Alpha Theta September 2018