

Shyam Adhikari
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EDUCATION

University of New Mexico

Expected Graduation Date: July 2021

Bachelor of Mathematics with a concentration in Applied Mathematics || Minor: Chemistry || **GPA: 3.96**

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-)

- 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