

SHAHAB MANSOOR BAGHAEI

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SUMMARY

Enthusiastic data scientist with extensive background in mathematics. Strong ability to lead projects, do the research and collaborate to achieve organizational goals. Results-focused professional projects with the background in Programming, Statistics and Machine Learning.

SKILLS

SOFTWARE: Python (Numpy, Pandas, Seaborn, Matplotlib), SQL, Mathematica

MACHINE LEARNING: Linear regression, Ridge, AdaBoostClassifier, Cross Validation, Logistic Regression, Model performance analysis

STATISTICAL ANALYSIS: Statistical parameters, Regression, Hypothesis testing, Data Visualization

PROJECTS

- **Statistical analysis and prediction of reservation status for hotel booking, July 2022**
Performed analysis for an extensive statistical dataset of hotel booking. Found the best month for the hotel reservation and most popular room type by Matplotlib. Good agreement between actual data and predicted values by AdaBoostClassifier for the reservation status.
- **Prediction of average temperature and humidity of Austin/Texas weather, September 2022**
Implemented EDA and modelling on a data of Austin/Texas weather conditions. Applied some functions based on timestamp. Observed good predicted values for temperature and humidity by Linear regression model using multiple features rather than other models.
- **Data analysis and active driver prediction based by an appropriate model, August 2022**
Accomplished analysis of a company transportation data. Implemented modelling based on performance evaluation. Extracted the important features for prediction. Observed the best results for GradientBoostingClassifier function to predict the active driver.
- **Prediction of adopted users for the project management software, August 2022**
Carried out visualization of some important features of data frame for the specific project management software. Made prediction of adopted user by AdaBoostClassifier and LinearRegression models. Concluded the better prediction for AdaBoostClassifier.

EMPLOYMENT

New York University

Adjunct Faculty, Sept. 2015 to current, New York, New York

- Achieve department objectives by developing course syllabi aligned with the institution's mission, values, and program outcomes.
- Manage the scope of creating course schedules, learning activities, lecture materials and research projects.
- Train around 1000 college students regarding fundamentals of Mechanical Engineering to identify, formulate and solve complex engineering problems.

City College of New York

Industry Consultant, Feb. 2014 to current, New York, New York

- Provide consultation, technical suggestion and support for 10 industrial projects, designs, validations and implementation of industrial researches.
- Deliver technical method and solution based on project requirements and criteria.

City College of New York

Post-Doctoral Fellow, Oct. 2012 to Feb 2017, New York, New York

- Improved safety in automobiles by conducting research on analytical investigations of head impact mechanics during automotive accidents.
- Identified the impact force and deformation and other important quantities.
- Investigated the most common injury criterion in automotive safety called HIC. Published many papers regarding safety and crash pulses.

EDUCATION

Springboard (Data Science), Mar 2022 to Nov 2022

Project-Based Curriculum Regarding Python, Programming Codes, SQL, Jupyter, Statistics, Data Wrangling, EDA and Machine Learning

University of Science and Technology, Jan. 2002 to Oct. 2008

PhD in Mechanical Engineering

University of Science and Technology, Sept. 1998 to Nov. 2000

Master of Science in Mechanical Engineering

Azad University, Sept. 1993 to Jan. 1999

Bachelor of Science in Mechanical Engineering