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SERGE ALHALBI

SUMMARY

Prospective data analyst who strives to pose and answer questions with quantitative-driven insights. Proficient knowledge of statistics, mathematics, and engineering. Hands-on machine learning and excellent understanding of analytics tools for effective analysis of data.

EDUCATION

M.S. in Applied Mathematics | University of Dayton | Ohio – United States | GPA: 4/4 **01/2021 – Present**

B.S. in Mechanical Engineering | Lebanese International University |Tripoli – Lebanon | GPA: 3.98/4 **10/2017 – 06/2020**

PROFESSIONAL EXPERIENCE

Instructor of Record | University of Dayton | Ohio – United States **08/2021 – Present**

- Prepared Finite Mathematics course materials, including assignments, quizzes, and tests for a class of 30 students.
- Taught Finite Mathematics thrice a week and achieved a class course average of 80.61/100.
- Attended mathematics colloquia once a week and maintained regular office hours to advise and assist my students.

Operations Assistant | University of Dayton Facilities Management | Ohio – United States **05/2021 – 08/2021**

- Collected, sorted, and continuously updated large data sets of more than 100 On-campus housing units through Excel and Google Sheets on cleanliness, paint, maintenance, furnishings, and occupancy.

Graduate Teaching Assistant | University of Dayton | Ohio – United States **01/2021 – 05/2021**

- Responsible for performing Calculus teaching and teaching-related duties to assist faculty members and two professors.
- Proctored exams, graded tests, held office hours, and recorded grades for two classes of 30 students each.

Thermal Power Plant Intern | EDL Kadisha Thermal Power Plant | Anfeh – Lebanon **07/2019 – 08/2019**

- Interpreted machines, material resources, and mechanical parameters in collaboration with a small group of 5 senior engineers.
- Inspected different maps such as the electricity generation cycle, turbine phases, and electricity distribution to areas around.
- Gained an understanding of the key steps for sustaining 40% thermal plant efficiency.

TECHNICAL SKILLS: Microsoft Office Suite and Google Applications - Tableau - R, C, Python (Numpy, Pandas, Scikit), SQL and Java - GNU Octave, MATLAB and SAS - AutoCAD and SolidWorks - LabVIEW, PSpice, LTspice, and RETScreen - Cloud Computing Basics.

PROJECTS:

- Forecasting Product Weekly Shipments (Time Series): Obtained the time series data from "Kaggle" -> Modeled the dataset before then after two different types of interventions -> Validated the ARIMA model then forecasted 10 future values (SAS).
- Effect On Water Filtration Time (Design of Experiments): Gathered two unreplicated Fractional Factorial design datasets (8 runs, 16 runs) -> Modeled and Analyzed all 7 factors for both models -> Concluded which factors are active then compared both models (SAS).
- A Plastic Recycling Machine (Mechanical Engineering): Constructed a two shaft plastic recycling shredder (SolidWorks).
- Compression with K-Means of My Own Images (Machine Learning): Reduced the number of bits needed to describe 10 images of my own by shrinking thousands of RGB colors per image to only 15 colors per image (MATLAB).
- My Own Spam Classifier (Machine Learning): Preprocessed emails then extracted features from them -> Trained an SVM spam classifier (4000 training examples and 1000 test examples) using a Vocabulary list of 1899 words. The classifier got a training accuracy of about 97.4% and a test accuracy of about 95.6% (MATLAB).
- 5 Mutually Exclusive Alternatives (Engineering Economics): Collected then tabulated the data for all alternatives -> Calculated results then plotted DB and DDB graphs for each alternative -> Interpreted depreciation results then determined the best alternative (Excel).

CERTIFICATES AND ACHIEVEMENTS:

- President's Honor List Certificates | GPA: 4/4. **(Fall 2018 - Spring 2018 - Fall 2019)**
- Courses Certificates: (Issued by: Coursera, LinkedIn, datacamp, Sololearn)
  Algorithms, Data Collection, and Starting to Code - Machine Learning - AI for Everyone - SQL - Python for Data Science, AI and Development - Tableau Fundamental Track - Learning LabVIEW - Introduction to Cloud Computing | Score: 100/100.
- Central Heating System Certificate - Energy Engineering Certificate | Score: N/A. **02/2020**
- Duolingo English Test DET | Score: 130/160 – Diploma in French Language Studies - DELF B2 | Score: 60.5/100. **09/2020**

LANGUAGES: English: Native or Bilingual Proficiency – Arabic: Native or Bilingual Proficiency – French: Full Professional Proficiency.

ORGANIZATIONS: American Mathematical Society: Member – BeirutAI: Member.