

Reem Ibrahim El-Houby

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Objective

Seeking knowledge and experience to become successful in the professional life.

Education

- Faculty of Management, Economics, and Business Technology
Egyptian Russian University
B.Sc in Business analytics
Third Level, CGPA= 3.40 10/2021 – Present
- Zoser Prince's Language School 9/2018 – 8/2021
- Pyramids Language School 9/2007 – 7/2018

Programming Languages

- C++
- Python
- R
- SQL

Skills

- Data Analysis
- Coding
- Computer Skills
- Adobe Photoshop
- Hard Working
- Office 365
- Presentation skills
- Teamwork
- Communication

Events

- Maat for Peace, Development, and Human rights – 2021
- “Data Science Conference” DSC MENA 24 - 2024

Languages

- Arabic – Native
- English – C1 (Fluent)
- Russian – A2

Hobbies

- Learning languages
- Photography
- crafting
- Reading

Work Experience

- “Future Employee for the Digital Era” Summer Training Program 2023 at Commercial International Bank (CIB)
- **Group projects:**
 - We develop library management system to efficiently manage book inventory, and facilitate book borrowing process. Implemented using C++.
 - Immigration is the process of moving to a new country or region with the intention of studying and living there, This study was conducted with a sample of ERU students, comprising 33 individuals from various faculties. The aim was to investigate the impact of immigration on their university life and psychological well-being to reveal the nature of the relationship between psychological feeling of immigration and the performance of students, Using SPSS we analyzed our data in two parts descriptive analysis and inferential analysis.
 - We designed and implemented a mini library system using Java, using in object-oriented programming and software development. This system efficiently manages library resources, enabling users to view books and borrow items seamlessly. By leveraging Java features such as classes, inheritance, and encapsulation, we ensure the effectiveness and scalability of the system.
 - We designed a project that is used to understand and gain insight about how total grades can be affected by different variables, analyzing data by visualization, and conducting dashboards using excel that can easily display real time data and update it frequently.
 - We have leveraged excel to craft dynamic dashboards offering comprehensive insights into retail performance metrics. Through data analysis and visualization techniques.
 - We have utilized Power BI to create insightful dashboards that illuminate key metrics and trends in customer revenue and profitability. Through data analysis and visualization techniques.
 - we developed a comprehensive car rental system, employing the Software Development Life Cycle (SDLC) methodology. Beginning with planning, followed by analysis which included gathering of requirements, design, and implementation using SQL , we used tools like IDEA Modeler and SQL and gave a report to ensure the validity of KPIs
 - We contributed to the development of a comprehensive system inspired by Uber's model, utilizing SQL as a tool for implementation and ERD plus for Enhanced ERD. Our project had various stages, from planning to implementation, focusing on efficient database management and system functionality

- There are many data structures that can be used for efficient implementation of a system so we developed a mini and simple project using one of these data structures which was Queue.
- In this project, we embark on a comprehensive data analysis journey with a primary focus on the "Cardiovascular Disease" dataset obtained from Kaggle. The significance of selecting this dataset lies in its crucial role in public health, providing a sturdy foundation for unravelling patterns and risk factors associated with cardiovascular diseases (CVDs). Our exploration spans various dimensions, from understanding the dataset's composition to employing advanced analytical techniques using Python. This will help us identify key risk factors by understanding the relationship, trends, patterns, distribution and interactions between variables and then preprocessing and visualization to make it easier to understand data and raise awareness and help reduce those risk factors.
- In this project, we embark on a comprehensive data analysis journey with a primary focus on the "World Values Survey 2018" dataset as it pertains to Egypt. The significance of selecting this dataset for Egypt lies in its pivotal role in understanding the intricate factors influencing corruption within the country during the year 2018 choosing this data was deeply rooted in its recognized importance within social science literature and is interesting for researchers, policymakers, and anyone curious about understanding the various factors influencing corruption in Egypt. Our exploration spans various dimensions, from understanding the dataset's composition and then preprocessing and visualization, it might help predict and anticipate corruption levels in Egypt. By implying advanced analytical techniques and different libraries and packages using Python.
- In this project, our focus is on a comprehensive data analysis journey, centring around the "Fast Food Nutrition" dataset obtained from the OpenIntro website, a reliable repository of datasets. The selection of this dataset is grounded in its pivotal role in illuminating dietary patterns and nutritional components associated with fast-food consumption. This dataset compiles information related to various food items offered by different restaurants, aiming to investigate the nutritional factors associated with fast food. Drawing from diverse sources such as restaurant menus, nutritional labels, or a combination of references ensures a comprehensive representation of nutritional parameters, then preprocessing and visualization to help Improving nutritional components balancing that can be offered for dietary customers.
- In the Cars project, I utilized R to perform extensive data cleaning and preprocessing to ensure the dataset was suitable for analysis. This involved handling missing values, removing duplicates, and transforming variables to the appropriate formats. I used techniques such as imputation to fill in missing data and outlier detection methods to identify and treat anomalies. Once the data was cleaned, I implemented feature selection using methods like correlation analysis to remove highly correlated features and reduce multicollinearity. Various models were created, including linear regression and LASSO regression, and I used Box-Cox transformations to normalize the data for better model performance. Model comparison was

done to identify the best performing model based on metrics such as RMSE and adjusted R-squared. This thorough approach ensured the development of a robust predictive model for car pricing.

- In the Lead Score project, R was instrumental in managing the data's quality and structure. The dataset required significant cleaning, including handling imbalanced data through resampling techniques like ROSE to ensure a balanced representation of classes. Correlation analysis was performed to identify and remove highly correlated variables, thereby reducing multicollinearity and improving model performance. Missing values were imputed, and categorical variables were encoded appropriately. For model creation, I developed multiple predictive models including logistic regression, decision trees, SVM, random forests, and k-NN. Feature selection was applied using recursive feature elimination and importance ranking methods. The models were compared based on metrics such as accuracy, precision, recall, F1 score to determine the best model for predicting lead conversion.
- During our Operations Research project, we utilized Excel to optimize the production of two types of bread in a bakery. The aim was to maximize profits while staying within ingredient constraints. By applying linear programming, we determined that the optimal production strategy would result in the bakery producing approximately 22.73 units of Small Bread and no Big Bread, leading to a maximum profit of 181.82 Egyptian pounds. This project demonstrated our ability to use Excel for effective resource allocation and decision-making in a real-world context.
- Market basket analysis project, our team conducted a comprehensive market basket analysis to uncover patterns and relationships among items frequently purchased together by customers. We utilized Python to process and analyze transaction data from a retail store, employing techniques such as association rule learning with algorithms like Apriori and FP-Growth. Our objective was to optimize product placement and enhance marketing strategies based on the insights gained. By identifying key product associations, we aimed to improve overall customer satisfaction and drive sales revenue. This project highlighted our proficiency in applying data-driven methods to real-world business problems.
- I collaborated with a team to develop a comprehensive Power BI dashboard for analyzing departmental performance across various metrics. Our focus was on visualizing data to identify key performance indicators (KPIs), trends, and areas needing improvement within the organization. Using Power BI, we created interactive and dynamic reports that provided valuable insights to stakeholders, enabling data-driven decision-making and strategic planning.

-Drive link which contain all projects :

https://drive.google.com/drive/u/2/folders/1blmik4_HAjqXyOb9Zhb5AWRChEmq8dWb