Wasan Maaitah

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EDUCATION

M.S., Data Science *Oct 2021 – Jan 2024*
Princess Sumaya University for Technology, Amman, Jordan GPA: 86 out of 100

Thesis: Telemedicine Interventions On Clinical Outcomes In Patients: A Systematic Review And Meta-Analysis.

B.S., Computer Science *Sep 2017 – Feb 2021*
University of Jordan, Amman, Jordan GPA: 3.3 out of 4

Graduation Project: Messages Transfer System-Web Application.

PROFESIONAL EXPERIENCE

Lecturer, Dept. of Data Science and Artificial Intelligence *Oct 2025 – Present*
Princess Sumaya University for Technology, Amman, Jordan

- Teach undergraduate courses in data science and artificial intelligence.
- Supervise undergraduate capstone and graduation projects.

AI Quality Engineer *July 2025 – Oct 2025*
King Hussein Cancer Center

- Developing and validating machine learning, NLP, and generative AI models for healthcare applications.
- Deploying scalable AI solutions on Microsoft Azure to support clinical decision-making and cancer research.

Data Science Course Trainer *April 2025 – Jul 2025*
SHAI for AI Company

- Delivering practical, hands-on training in data science, covering all essential topics and skills required in the field, with a focus on real-world applications using Python.

Lecturer, Dept. of Computer Science (Part-Time) *Oct 2024 – Jun 2025*
University of Jordan, Amman, Jordan

- Instructing undergraduate students in Discrete Mathematics for Computer Science, focusing on foundational concepts such as logic, set theory, and combinatorics, essential for algorithm design and data structures.
- Developed and delivered lectures, crafted assignments, and guided students through problem-solving approaches in discrete math.

Data Scientist for Regulatory Compliance Department *Oct 2023 – Jun 2025*
Arab Bank - Realsoft, Amman, Jordan

- Developed multiple machine learning models focusing on anti-money laundering and sanctions, aiding the bank in meeting global regulatory standards.
- Proficient in utilizing Tableau for comprehensive data analysis and visualization..

Research Assistant *Mar 2022 – May 2024*
Princess Sumaya University for Technology, Amman, Jordan

- Research experience: conducting network meta-analyses and systematic reviews.
- Data extraction and analysis: extract data from primary studies and perform statistical analyses using R and python.
- Overleaf proficiency: strong command of Overleaf and expertise in LaTeX typesetting.

Teacher Assistant *Mar 2022 – Oct 2023*
Princess Sumaya University for Technology, Amman, Jordan

- Taught university-level courses on R programming, NLP, BI, ML, and data engineering.
- Conducted lectures, and provided explanations and guidance to students.

Practical Python Workshop *Nov 2023 – Dec 2023*
Princess Sumaya University for Technology, Amman, Jordan

- Instructed students in practical python skills, covering data types, functions, and data visualization.

Laboratory Supervisor *Mar 2021 – Mar 2022*

Applied Science Private University, Amman, Jordan

- Focusing on managing academic and technical aspects of laboratory operations.

Game Developer *Mar 2020 – Sep2022*

Maysalward, Amman, Jordan

- Internship, I was involved in the development of a game utilizing C# and the Unity game engine.

SIGNIFICANT ACADEMIC PROJECTS

Master Thesis:

Telemedicine interventions in T2DM: Systematic Review and Network Meta-Analysis (Spring 2023)

- Developed a comprehensive protocol for the systematic review and network meta-analysis (NMA) of telemedicine interventions in type 2 diabetes management (T2DM).
- Published the protocol in Prospero, showcasing the research question, identification of research gaps, search strategy, and criteria for filtering relevant papers.
- Wrote a paper on the protocol, which was published in BMJ Open, providing a detailed outline of the methodology and objectives of the study.
- Conducted a systematic literature search to identify relevant studies and extracted data based on predefined criteria.
- Designed a data repository to organize and manage the collected data.
- Collected data from selected studies and compiled it in the repository for further analysis.
- Built NMA to examine the effectiveness & comparative efficacy of different telemedicine interventions in T2DM.
- Ensured the validity of the NMA through rigorous statistical analysis and evaluation of the included studies.

Courses' Projects:

NLP models to predict the opinion of testing reviews (Spring 2023)

- Cleaned and preprocessed data for analysis.
- Utilized TF-IDF, Word2Vec, bidirectional LSTM, and BERT for sentiment analysis.
- Experimented with various NLP models to assess their impact on sentiment prediction accuracy.
- Conducted comprehensive evaluations using metrics such as accuracy, precision, recall, and F1-score.

Hyperparameters Tuning in ML: A Face-off between SVM and LR (Fall 2022)

- This study compares the performance of SVM and LR using 10-Fold cross validation and grid search to determine optimal hyperparameters.
- It examines the impact of varying parameters on model performance, including class imbalance. And explores class imbalance learning techniques for addressing any imbalance.

ANN and Deep Learning model (CNN) on Images (Fall 2022)

- In this study, we applied artificial neural networks (ANNs) to analyze a medical dataset comprising images. Specifically. I utilized a deep learning approach using Convolutional Neural Networks (CNNs), and fine-tuned the model parameters to optimize its performance.

Formulation of MILP Problem (Fall 2022)

- Developed a Mathematical Integer Linear Programming (MILP) model as part of the business modeling course.
- Implemented the MILP model using CPLEX, writing code to define the objective function, constraints, and DV.

Web Scraping (Spring 2021)

- As part of a data engineering course project, our team focused on developing a web scraping tool to extract news articles in the Arabic language. A key objective of our project was to implement a functionality to identify and retrieve the most trending news articles based on their popularity and level of engagement.

Sentiment Analysis of DM regression technique role in housing price prediction (Spring 2021)

- During the data mining course, our team undertook a project to investigate the application of machine learning techniques for predicting home prices. The outcome of this project was a research paper detailing our methodology, findings and insights.

Analysis data for Proteogenomic of Breast Cancer (Fall 2021)

- As part of our Big Data course, we utilized PySpark to explore unsupervised machine learning techniques. Specifically, we employed the K-means clustering algorithm to analyze breast cancer proteomics data.

Time Series Forecasting and Analysis (Spring 2021)

- Conducted time series analysis and forecasting tasks using machine learning techniques.
- Worked with multivariate datasets, applying preprocessing techniques to ensure data quality and consistency.
- Conducted correlation analysis to identify relationships between variables in the dataset.
- Applied various machine learning models, including Linear Regression (LR), Support Vector Machines (SVM), k- Nearest Neighbors (KNN), Artificial Neural Networks (ANN), Decision Trees (DT), and Random Forest (RF).
- Developed and optimized predictive models using these machine learning algorithms.
- Implemented feature engineering and selection techniques to identify the most relevant variables for accurate forecasting.
- Evaluated the performance of the models using appropriate metrics to assess their accuracy and effectiveness.

B.S. Graduation Project

Project Messages Transfer (Fall 2020)

- Developed a website using CSS, HTML and SQL for interdepartmental communication within a company.
- Created an intuitive user interface with CSS and HTML to enhance the user experience.
- Designed and managed a SQL database system for storing and retrieving messages between departments.
- Enabled composing, sending, and viewing of messages for effective communication and collaboration.

SKILLS

Programming Languages:	Python, R, SQL, PySpark, Java, HTML, CPLEX, C#, C++, CSS.
Data Science and Machine Learning Tools:	Google Antigravity, Cursor, Airflow, Docker, MongoDB, NetBeans, Nifi, RStudio, Colab, VSCode, PostgreSQL, Unity, Knime, Overleaf, Panda, SKlearn, Tidyverse.
Software:	Tableau, Overleaf, VSCode, Cursor, MS Office, RStudio, Jupyter book.
Core Skills:	Competent in data visualization, data structure design, and advanced machine learning and AI techniques. Also skilled in Power BI, technical writing, and data analysis.

PUBLICATIONS

- **Maaitah, W.**, Abdelhay, O., Tourkmani, A., Azzeh, M., Abu-Soud, M. S., & Atiani, S. (2024). Telemedicine interventions in type 2 diabetes management: a protocol for systematic review and network meta-analysis. BMJ open, 14(2), e078100.
- AL Kasasbeh, E. T., **AL Maaitah, W.**, AL Kasasbeh, R. T., Shaqadan, A., & Al-Habahbeh, O. (2025). Nicotine as A Hazardous Chemical: Analysis of Smoking Behavior and Cessation Strategies among Pharmacy Students in Jordan using Chemical, Statistical and Machine Learning Approaches. Jordanian Journal of Engineering & Chemical Industries (JJECI), 8(3).
- Sammour, F., Alkailani, H., Sweis, G. J., Sweis, R. J., **Maaitah, W.**, & Alashkar, A. (2024). Forecasting demand in the residential construction industry using machine learning algorithms in Jordan. Construction Innovation, 24(5), 1228-1254.
- Al Kailani, H., Sweis, G. J., Sammour, F., **Maaitah, W. O.**, Sweis, R. J., & Alkailani, M. (2025). Predicting construction cost index using fuzzy logic and machine learning in Jordan. Construction Innovation, 25(5), 1479-1500.
- **Maaitah, W.**, Abdelhay, O., Azzeh, M., & Abu-Soud, M. (2023). Telemedicine Interventions in Type 2 Diabetes Management: A Protocol for Systematic Review and Network Meta-Analysis.

PROFESSIONAL DEVELOPMENT AND CERTIFICATION

- Data analysis | Coursera
- Machine learning with scikit-learn | Data Camp
- Big data with PySpark | Data Camp
- Exploratory data analysis in R | Data Camp
- Data visualization with matplotlib | Data Camp
- Preprocessing for machine learning in python | Data Camp
- Machine learning with PySpark | Data Camp
- ETL in python | Data Camp
- Airflow | Data Camp
- Data manipulation | Data Camp
- Introduction to SQL | Data Camp
- Writing efficient Code | Data Camp
- LLM Engineering | Udemy
- Developing ASP.NET MVC web applications | The Hope International Center.

VOLUNTEERING

- Atypical society

  -This society focuses on providing training and development opportunities for individuals to enhance their job application skills and increase their chances of securing employment with firms.

- NashamaIT

  -I was affiliated with a society at a Jordanian university where I instructed IT students in physics through a series of courses during my volunteer work with NashamaIT.

- Charitable volunteering

  -My preferred volunteering activity involves working with a charitable organization that focuses on aiding the elderly through companionship and social support.

  -Additionally, this organization provides assistance to children and families in need, facilitates Ramadan breakfast events for orphans and the elderly, engages with individuals with special needs, and organizes structured activities for orphaned children. A Facebook page is available to showcase the various charitable activities that this organization undertakes.

  - My position entails leadership responsibilities.