# HAIFA GHRIBI

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Istanbul - Turkey

## **Summary**

Motivated 3rd-year Computer Engineering student with a growing expertise in software development, machine learning, and data science. Skilled in Python, Java, and C. Strong foundation in data structures, algorithms, and web development. Eager to apply technical and soft skills to drive innovative solutions in professional settings.

### **Education**

#### Marmara University

09.2022 - Present

B.Sc. in Computer Engineering

Istanbul, Turkey

• Relevant Courses: Data Structures, Analysis of Algorithms, Programming, Systems Programming, Operating Systems, Database Systems, Object-oriented Software Design, Probability, and Statistics.

# **Work Experience**

# · VenitLab, Machine Learning Department

01.2025 - 02.2025

Machine Learning Intern

Istanbul, Turkey

- Conducting data preprocessing, feature engineering, and exploratory data analysis to enhance model performance.
- Developing, optimizing, and fine-tuning machine learning models for predictive tasks.
- Deploying models for real-time use and performance monitoring.

# Albayrak Group, Machine Learning Department

07.2024 - 08.2024

Data Science Intern

Istanbul, Turkey

- Developed proficiency in **Python libraries** for machine learning and data analysis.
- Conducted data preprocessing and exploratory data analysis (EDA).
- Applied supervised and unsupervised learning algorithms in multiple projects.
- Optimized clustering using techniques like the Elbow Method and silhouette score.
- Collaborated with a mentor and cross-functional team to enhance problem solving and machine learning skills.

 Edutest 07.2020 - 08.2020 Web Development Intern Sousse, Tunisia

- Led a Web Development club, mentoring participants in front-end development.
- Taught HTML, CSS, JavaScript, and Bootstrap, for building responsive web applications.
- Conducted workshops on technical and soft skills, including teamwork, and problem-solving.

## **Projects**

## • House Price Prediction using Machine Learning

02.2025 - 03.2025

- Developed an end-to-end house price prediction model using **Python**.
- · Collected and preprocessed real estate data, handling missing values, skewness, and outliers.
- Performed **exploratory data analysis (EDA)** to uncover correlations and key features.
- Applied feature engineering techniques to improve model performance.
- Trained multiple regression models (Linear Regression, Decision Trees, Random Forest, XGBoost) to optimize accuracy.
- Used hyperparameter tuning, achieving 20% lower RMSE, improving model performance.
- **Deployed** the trained model on a locally hosted web app using **Flask**, allowing real-time predictions.

#### 2-TSP Problem Solver Project

04.2024 - 05.2024

- Designed and implemented an optimized algorithm for the Two-Traveling Salesmen Problem (2-TSP) using C.
- Implemented **K-Means clustering** to divide cities into two groups, assigning one group to each salesman.
- · Applied the Nearest Neighbor algorithm for initial route generation, followed by 2-opt heuristics for further optimization.
- Achieved a 22% reduction in tour length compared to a greedy approach, improving efficiency.

## **Experience and Activities**

## • Yale Young African Scholars Mentor

Remote

• Guided young African students through the university application process, maintaining regular bi-weekly communications to provide support for applications to universities in the USA and abroad.

## • Set Free Tech Workshops

09.2019 - 04.2021

Sousse, Tunisia

• Organized free tech workshops in schools and organizations to promote digital literacy among children, demystifying technology and coding.

# • Yale Young African Scholars 2020 Alumni

07.2020 - 08.2020

Remote

• Selected out of thousand applicants to join an intensive academic and enrichment program, acquired academic and soft skills while fostering a deeper understanding of diverse African cultures.

# • WeRWebDevs Bootcamp by US Embassy and Mentornations

08.2019 - 09.2019

Tunis, Tunisia

 Selected out of 1400 applicants for a month-long Web Development Camp, collaborating with participants to enhance full-stack web development skills.

#### **Skills**

- · Languages:
  - Native: Arabic. Bilingual: French. Fluent: English, Turkish. Beginner: German.
- Programming Languages:
  - · C, Python, Java, C#, Assembly, MATLAB, JavaScript, Prolog, Haskell.
- Data Science & Machine Learning:
  - Python (Pandas, NumPy, Scikit-learn, TensorFlow), MySQL.
- Web Development:
  - HTML, CSS, Bootstrap, Angular, UI/UX Design, Figma, Node.js.
- Tools & Technologies:
  - Linux/Unix, GCC Compiler, Git, Jupyter Notebook, Anylogic, LaTeX, VSCode, MS Office.
- Soft Skills:
  - Communication, Problem-solving, Team Collaboration, Adaptability, Time Management.

#### **Honors and Awards**

Government Scholarship to study Computer Engineering in Turkey	08.2021
	08.2021
Government of Turkey	
Acceptance to African Leadership Academy	09.2020
African Leadership Academy, South Africa	
Certificate of Leadership	09.2019
US Embassy in Tunisia	
Certificate of Achievement and Technical Skills	09.2019
US Embassy in Tunisia	
3rd Place, National Sudoku Competition	05.2016
National Competition, Tunisia	

09.2022 - 02.2023