

Jawad Ayash

+96171190974 | jawad.ayash6@hotmail.com
Beirut, Lebanon | [Linkedin](#)

PROFESSIONAL EXPERIENCE

Weave Wider, Web Development Internship, Beirut

Jun 2024 – Sep 2024

- Developed backend functionality using **Node.js** and **Express**, building secure and scalable **RESTful APIs**.
- Managed data storage and retrieval with **MySQL**, writing and optimizing queries to enhance performance.
- Integrated **third-party APIs** and implemented authentication protocols to ensure secure access control.
- Built front-end components using **Angular**, contributing to a responsive and user-friendly UI.
- Tested API endpoints with **Postman** and helped document the backend for future developers.
- Collaborated with a cross-functional team using **Git**, applying branching strategies and managing pull requests.
- Gained exposure to multiple development roles through close collaboration with a 6-member multidisciplinary team.

PROJECTS

1. Crop Yield Forecasting – Capstone Project

Jan 2025 – Present

- Developed an end-to-end machine learning pipeline to forecast wheat crop yields based on environmental and agricultural parameters including temperature, precipitation, and pesticide usage.
- Performed comprehensive data preprocessing, cleaning, and feature engineering to improve model input quality and ensure consistency across datasets.
- Conducted exploratory data analysis using Python libraries to visualize trends, distributions, and correlations.
- Trained and evaluated multiple regression models with performance assessed using R^2 , RMSE, MAE, and MAPE metrics.
- Implemented CTGAN (Conditional Tabular GAN) to generate synthetic tabular data, expanding the training set and enhancing model generalization.
- Visualized model results clearly with charts showing feature importance and prediction accuracy.
- Serialized the final model using Pickle for future deployment and prediction integration.

2. Web Development Course Project

Oct 2024 – Jan 2025

- Built a full-stack web application using Laravel (PHP framework) for backend development.
- Developed user interfaces and front-end functionality using HTML, CSS, JavaScript, and Blade templating.
- Implemented features such as user authentication, CRUD operations, and database integration.

EDUCATION

- Bachelor Degree in Computer Engineering**
Al Maaref University

Sept 2020 – Jun 2025

TECHNICAL SKILLS

- Programming Languages: Java, JavaScript, C++/C, Python
- Backend Development: Laravel (PHP), Node.js, Express.js, RESTful APIs
- Frontend Development: Angular, Blade templating
- Databases: MySQL, PostgreSQL
- Version Control: Git, GitHub
- Operating Systems: Windows, Ubuntu Linux
- Networking & Architecture: Computer Networks, Computer Architecture
- Embedded Systems: Assembly Language, C for microprocessors
- Data Science & Machine Learning: Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn
- Machine Learning Techniques: Regression Models, Model Evaluation Metrics
- Data Augmentation & Generative AI: CTGAN for synthetic data generation

LANGUAGES

- English | French | Arabic