# **SARAH ALAYAN** AI ENGINEER – DATA ANALYST

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Sarah Alayan



sarahalayan

#### **About me**

I'm Sarah. A fresh Computer and Telecom Engineering graduate interested in AI, machine learning, and backend development, and I would like to apply my knowledge in a practical setting, working on real projects and learning from experienced professionals. I am eager to continuously improve my skills and stay up to date with the latest technologies.

### **Education**

2020 – 2025: Bachelor's in Electrical and Electronics Engineering at Lebanese University, Faculty of Engineering.

November 2024 - April 2025: Machine Learning Specialization with ZAKA

2022 – 2023: CCNA1, CCNA2, CCNA3 via Cisco Academy

#### Skills

Soft Skills: Time management, leadership, teamwork, adaptability, problem-solving......

#### **Hard Skills:**

- Programming Languages: C/C++, JavaScript, C#, Python, Bash, Git, SQL
- Frameworks: Langchain, Flask, Django, ASP.NET, Plotly Dash, Pytorch, Tensorflow
- Libraries: Scipy, Pandas, NumPy, OpenCV, scikit-learn, Matplotlib, Seaborn, Requests, Pillow
- Machine Learning: Multi-Task Learning (MTL), computer vision, deep learning, classification, object detection, NLP, Agent-based Systems

## **Experience**

**Data Analyst intern at Teknologix Automation** 

March 2024 – May 2024

Processed and cleaned data, as well as created interactive charts using Plotly Dash and Node.js.

Django Backend Developer at ByteTactix

July 2023 – October 2023

Developed web applications, designed APIs, and managed databases and deployment.

#### **Projects:**

Multi-Task Learning for Plant Health Monitoring and AI Assistance: Developed a plant monitoring system using a Multi-Task Learning (MTL) model on a MobileNetV2 backbone for simultaneous fruit, ripeness, and disease detection. The system features a Flask backend with APIs, a real-time video stream, and a conversational chatbot for analysis and user interaction.

**Smart Streets: Early Crack Detection Using AI:** Tested and compared the detection and segmentation performance of one of the instance segmentation architectures, Mask R-CNN, using both the Torchvision and Detectron2 frameworks.

**Real-time Chat & Server:** Built a chat application and server using C# and WPF. The system uses a fast network connection with TCP to handle messages and data in real-time and is designed to support many users.

**Investigation Management System:** Developed a C# desktop application with WPF to manage investigation records, including people, vehicles, and biometric data. The system uses an Entity Framework database with asynchronous methods for reliable and efficient data handling, and features a clean, multi-form user interface with data validation.

Store Management Project using C++ and Object Oriented Programming.

To Do App using Django Rest Framework.