

TAHA BOUSSADEN

Casablanca, MA | [in/taha-boussaden](https://in.taha-boussaden) | tahaboussaden.me

EDUCATION

1337

IT Architecture Student,

Khouribga, MA

Nov 2023 - Present

FSAC

Bachelor of Science in Computer Science,

Casablanca, MA

Oct 2020 - June 2023

SELECTED PROJECTS

SARA: RAG Augmented LLM Robotics Integration

- Developed a voice activated LLM system on Raspberry Pi 4 using Ollama, enabling conversational interaction.
- Implemented a RAG pipeline grounded in curated “seed facts” containing my school’s (**1337**) specific informations, enabling the LLM to act as an assistant, delivering accurate support.
- **Technologies** : Python, Ollama, Raspberry Pi 4, RAG System

Cat Convolutional Neural Network (CNN) from Scratch

- Built a custom Convolutional Neural Network (CNN) for image **classification** from scratch using Python, NumPy, demonstrating deep understanding of **neural network** architectures, backpropagation, and gradient descent.
- Developed a full training and evaluation pipeline from **scratch**, including loss functions, parameter updates, and performance metrics, achieving 0.56 accuracy, 0.69 precision, and 0.61 recall on validation data.
- **Technologies** : Python, NumPy, Pillow and h5py

Docker Production WP Suite

- Designed and implemented a multi-container **Docker** Compose infrastructure using handcrafted Dockerfiles based on minimal **Debian** images, providing control over system configuration and services.
- Deployed and orchestrated 8 isolated **containers** (WordPress, NGINX, MariaDB, Redis, FTP, Adminer, Portainer, and WordPress site), configuring a shared internal network with controlled external access through NGINX reverse proxy.
- **Technologies** : Docker, Docker Compose, Debian, NGINX, WordPress, MariaDB, Redis, FTP, Adminer, Portainer

AI Twitter Bot

- Designed and deployed a serverless with zero maintenance **Python bot** running **24/7** to automate news aggregation, abstractive summarization, and scheduled posting for niche specific Twitter (X) accounts.
- Integrated the **Hugging Face** Transformers pipeline with the BART (Meta AI) model to perform abstractive text summarization, converting full length articles into concise, tweet sized content.
- **Technologies**: Python, Tweepy (Twitter API), Hugging Face Transformers, BART

SKILLS

Python, C/C++, Bash, SQL, NumPy, TensorFlow, CNNs, RAG, REST APIs, Automation, Next.js, WordPress, Docker, Docker Compose, AWS, Redis, Git, GitHub

CERTIFICATIONS

ALC Advanced Cycle,
Supervised Machine Learning: Regression and Classification,
Neural Networks and Deep Learning,

American Language Center (ALC)
DeepLearning.AI
DeepLearning.AI

LANGUAGES

English (Proficient), **French** (Proficient)