

# AMIN BOUHAMED

IT Engineering Student

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<https://aminbouhamed.github.io/portfolio/>

## EDUCATION

### Hochschule schmalkalden

Computer Science bachelor Student

oct. 2023 – Now

Schmalkalden, Germany

### Higher School of Engineering and Technologies of Tunis

IT Engineering Student

Sep. 2021 – Now

Ghazela, tunisia

### preparatory institue for pre-engineering studies of sfax

Mathematical and physics diploma

Sep. 2019 – Juin 2021

Sfax, Tunisia

## EXPERIENCE

### RDI research group ESPRIT

Data Science Intern

July 2023 – September 2023

ghazela, tunisia

- As a part of a 2-members team I helped in developing a cutting-edge recommendation system for an online marketplace , 97% of accurate recommendations.  
Keywords : Collaborative filtering , Content filtering , ML

### 3S Startup

Backend Developer Intern

July 2022 – September 2022

Tunis, Tunisia

- Assisted in development of the Backend end of an online marketplace using Django , SQL server , MongoDB . optimized database queries, resulting in a 12% reduction in page load time and improved user experience.  
Keywords : Django , Django , Pymongo , SSMS , MongoDB

## PROJECTS

### Intelligent machine :Reverse vending machine | Python, Django,PostgreSQL,Computer vision

February 2023-april 2023

Developed an intelligent Robot that sorts bottles and cans, identifies brands, and measures volume accurately. secured the 3rd place out of 200 Best projects at esprit .

- Fine-tuned "centernet\_hg104.512x512" pre-trained model To Detect and classify inserted items , achieving an outstanding 95% detection accuracy, surpassing YOLOv7 by 2%.
- Fine-tuned a CNN model (InceptionV3) to identify brands with a remarkable 97% accuracy rate, enhancing the sorting process
- Generated a comprehensive dataset ,including height, width, and brand, derived from object detection results. fueled an Artificial Neural Network (ANN) model, achieving an impressive 98% accuracy in classifying bottle volumes.
- Developed a user-friendly Django-based web application, integrated with PostgreSQL, featuring real-time gamification System.

### Trend detection system|Machine Learning,Selenium,Beautiful Soup,Sentiments Analysis

November 2022-January 2023

Spreadheaded the development of an innovative social media trend extraction system. for the first Tunisian media (faza.tn)

- Proficiently scraped and collected real-time data from Twitter, serving as a valuable source for trend analysis and community engagement assessment.
- Utilized advanced statistical methods and machine learning models to identify and monitor emerging trends within social media platforms, 81% of trendy subjects successfully extracted.
- Transformed data into actionable insights to enhance the performance of our Models.

## KEY SKILLS

**Programming Languages:** Python, Java, C, SQL

**Big Data&Machine Learning:** Spark, Hadoop, Python (eg.numpy, pandas,matplotlib, Tensorflow, Keras, Scikit-Learn, Open-cv, NLTK)

**Data science&miscellaneous technologies:** Statistics, Time series, Hypothesis testing, Django, Linux, GitHub, Git, Docker, Latex, Django

**Databases:** PostgreSQL, MongoDB, Microsoft SQL Server

## CERTIFICATIONS

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- Applications of AI for Anomaly Detection Using Generative Adversarial Networks By NVIDIA
- Building Transformer-Based Natural Language Processing Applications By NVIDIA

## LEADERSHIP / EXTRACURRICULAR

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### Inceptum Junior Entreprise

Mars 2022 – Present

*Consultant*

*ESPRIT*

- \* Senior Member of commercial development department at "INCEPTUM" junior enterprise.
- \* Senior Member of project department at "INCEPTUM" junior enterprise.

### DeepFlow Club ESPRIT

December 2022 – January 2023

*Project Manager*

*ESPRIT*

- \* Spearheaded a Team of 5 members , sucessfully delivred an AI project for our partner (Faza.tn)

## LANGUAGES

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- Arabic(native)
- English (Fluent)
- Deutch(A1.2)
- french(Fluent)