Fadwa Lacham

Data Science Engineer

Rabat, Morocco
+212 36699614
fadwa.lacham@gmail.com
FadwaLacham
fadwa-lacham-90b882255

Profile

Recently graduated Data Science and IoT Engineer, passionate about Artificial Intelligence. Actively seeking opportunities to contribute to innovative data-driven projects.

Education

2022 - Present **Engineering Degree in Data Science and IoT**, *ENSIAS*, Rabat

2020 - 2022 **Preparatory Classes for Engineering Schools**, *Lycée Technique Errazi*, El Jadida

2019 - 2020 **High School Diploma in Mathematics A**, *With High Honors*

Languages

Arabic: Native French: Fluent English: Intermediate

Professional Experience

February–June 2025 **Graduation Internship – Development of an Intelligent Industrial Chatbot**, *OCP Group*, Casablanca

- Designed and developed a smart chatbot to query industrial data.
- Used Microsoft Bot Framework to manage multi-intent conversational dialogues.
- Integrated a Retrieval-Augmented Generation (RAG) API to handle complex technical queries using business documentation.
- Improved chatbot performance by enhancing response relevance and overall user experience.

July–August 2024 **Internship – Stock Management Prediction Project**, *DXC Technology*, Rabat

- Cleaned and preprocessed data to improve its quality for analysis.
- Created dynamic visualizations using Power BI to identify trends and support strategic decision-making.
- Compared several predictive models (SVR, ARIMA, Prophet, Random Forest) to determine the most effective one.
- Evaluated model performance using key metrics: MAE and RMSE.

July–August 2023 **Internship – Dataset Preparation and NLP Model Training for Darija**, *Xhub*, Casablanca

- Collected Darija textual data through web scraping using BeautifulSoup.
- Cleaned and prepared the data using Python NLP tools.
- Trained and optimized an NLP model with TensorFlow, increasing accuracy from 80% to 90%, significantly enhancing Darija text understanding and generation.

Academic Projects

Breast Cancer Screening Application

- Implemented and optimized CNN architectures including DenseNet201, VGG16, and VGG19.
- Achieved 81% accuracy with DenseNet201, identified as the top-performing model.
- Built a user-friendly platform for real-time mammogram classification using Flask for backend and Bootstrap for frontend.

Sentiment Analysis with VADER and RoBERTa

- Classified user reviews (positive, neutral, negative) from the Amazon Reviews dataset.
- Used VADER (rule-based tool) and RoBERTa (deep learning model).

Technical Skills

Programming	Java, Python, JavaScript	**Version Control**	Git, GitHub
Libraries	TensorFlow, scikit-learn, NLTK	**Databases**	MySQL, PostgreSQL, Oracle
BI Tools	Talend, Excel, Power BI	**Environments**	Colab, Jupyter
DevOps Tools	Jenkins, Docker	**Frameworks**	Flask, Bootstrap
Methodologies	CRISP-DM, Scrum, Agile Methods	**AI Tools**	Microsoft Bot Framework, RAG