Malek Bezzina

Machine Learning Engineer

Profile

A motivated, flexible, and open-minded person looking for chances to use and expand my expertise in **Data Analytics** and **Machine Learning.**

Education

ICT For Internet And Multimedia Masters, University of Padova, Italy

2022 — 2024

Focus Area: ICT For Automotive And Domotics, Internet Of Things And Smart Cities, **Statistics,** Computer Vision, Telecommunication Principles, Internet

Erasmus Plus, University of Padova & SUP'COM, Padova, Italy

2021 — 2022

Focus Area: **Machine learning**, Neural Networks and Deep Learning, **Foundation of Databases**, Human **Data Analytics**, High-Level Programming (Python)

Telecommunications Engineering masters, Higher School of Communication of Tunis - SUP'COM,

2017 — 2022

Focus Area: Cloud, **Statistical Modeling**, Development, Programming, **Data science**

Employment History

Master thesis: Infineon Technologies, Munich, Germany

Building the Next-Gen Search Engine with LLMs & RAG

January 2024 — August 2024

- Designed and deployed a search engine based on Large Language Models (**LLM**) that uses Retrieval Augmented Generation (**RAGs**) to improve **data retrieval** and **query responses**.
- Analyzed Supply Chain data, **cleansed datasets**, and developed **visual analytics** to effectively **predict** the bullwhip effect, **optimizing forecast** precision.
- Oversaw the new interns thorough training and onboarding.

Skills: *Python, LLM, GenAI, Retrieval Augmented Generation, forecasting*

Working Student: Infineon Technologies, Padova, Italy

Machine Learning Engineer

November 2022 — April 2023

- Developed **interactive software** for engineers to streamline their use of machine learning models, **enhancing operational efficiency**.
- Refined software functionality and **data processing** based on continuous user feedback, boosting user satisfaction and system reliability.
- Enhanced **Data Management** efficiency, enabling more informed strategic decision-making.

Skills: *Software Development, dash, plotly, Data Processing, Python*

Details

Munich, Germany

+49017635092893

malekbezzina24@gmail.com

Links

malek-bezzina

Portfolio:
https://malekbezzina.netlify.app/

Skills

Programming Languages:
Python, C, C++, HTML, CSS

Databases:
Oracle, MySQL

Software:
Visual Studi Code, MATLAB, Git, Android Studio, VMWare Workstation

Certificates

Coursera:

- Finetuning Large Language Models

-Lang Chain Chat with Your Data

-Neural Networks and Deep Learning

LinkedIn Learning:

A Beginner's Guide to Public Cloud Platforms

Master thesis: Infineon Technologies, Padova, Italy

Automatic Pattern Recognition with Machine Learning For Post Silicon Measurements
May 2022 — October 2022

- Developed machine learning software for **automatic pattern recognition** in post-silicon measurements, enhancing **outlier detection** capabilities.
- **Data Pre-processing** and **analysis**, including **sourcing and cleaning**, to support robust pattern recognition algorithms.
- Implemented **continuous labeling** for image recognition, improving **accuracy** with historical **data integration**.

Skills: *Semiconductors, Python, Computer Vision, ML/DL, Data analysis, TenserFlow*

Internship: Logis Technologies, Tunis, Tunisia

Natural Language Processing Engineer
July 2021 — September 2021

- Implemented a **machine learning** based **text generation** software to automate real estate descriptions, **enhancing listing efficiency**.
- Conducted **web scraping** to **collect data** on property descriptions, forming the basis for **model training and development**.
- Designed a user-friendly interface that simplified **keyword input** for users, streamlining interactions and **improving user experience**.

Skills: *NLP, NLG, Text Generation, UI Design, BERT, T5, K2T, Python*

Internship: Avidea, Tunis, Tunisia

Computer Vision Engineer
August 2020 — September 2020

- Led **image annotation** for car damage, setting the stage for model training with diverse damage types.
- Built and refined a **computer vision** model to accurately **detect** car damage severity.
- Enhanced **model precision** by varying damage **classifications** during testing, **improving** predictive performance.

***Skills**: Image Annotation, TensorFlow, CNN, Mask RCNN, YOLO v3, Python, Computer Vision, Agile*

Research Paper

A Mathematical Approach to the Bullwhip Effect in Semiconductors,
December 2025

Pending conference paper for the 2025 USA Winter Simulation Conference

Automatic Pattern Recognition with Machine Learning For Post Silicon Measurements
May 2023

Accepted Industrial poster in the 28th IEEE European Test Symposium 2023

Languages

Arabic Native

English TOEIC C2

French B2

Italian A2

German A1

Hobbies

Crafting, reading books, dancing and biking.