Yasmine Ben Saad

Machine Learning Engineer

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EDUCATION

National School of Electronics and Telecommunications of Sfax, 2020 – 2023 | Sfax, Tunisia
Industrial Computer Science Engineering Degree (with honors)

Higher School of Science and Technology of Hammam Sousse, 2018 – 2020 | Sousse, Tunisia
Preparatory classes + National Exam

PROFESSIONAL EXPERIENCE

The Sparks Foundation, Machine Learning Engineer Mar 2024 – Apr 2024 | Singapore (Remotly)
- Engineered a predictive model using supervised ML algorithms with 83% accuracy
- Successfully implemented a decision tree classifier that accurately predicts class when presented with 2 new data.

MEASUREMENT AND SENSOR TECHNOLOGY (MST), AI Engineer Apr 2023 – Sep 2023 | Chemnitz, Germany
- Prepared state-of-the-art for systems of hand gesture recognition and models optimize techniques with 23 papers.
- Achieved a 2% enhancement in accuracy, 79.6% reduction in inference time, and 98% decrease in model size
- Made the model and implemented it on 6 edge devices

DIGITAL RESEARCH CENTER, R&D Engineer Jul 2022 – Aug 2022 | Sfax, Tunisia
- Led the research and development for a 3D/AR welding helmet
- Specified the requirements for a welding surveillance camera.
- Realized benefits, including competitive pricing through engagement with 3 top surveillance camera suppliers

PROJECTS

GenAI - Symptom Image Generation for Diseases Nov 2024
- Developed a Generative AI model to create realistic images for 41 disease symptoms

SUMMARIZER - Flask-based Web Application May 2024
- Delivered a summary from 3 different sources (document, videos, and web pages).
- Produced a Flask-based web application that responds in an average of 1 minute.

AI-base Face Mask Detection Mar 2024
- Reached impressive 98% accuracy by utilizing MobileNetV2

AI-powered Waste Sorting Jun 2022
- Secured 85% accuracy through the development of DL model leveraging VGG16.
- Successfully deploy the model on a Raspberry Pi 4 using a camera for data input.

Chatbot detects 7 emotions through speech recognition May 2023
- Guaranteed the preprocessed dataset's adherence to defined quality standards.
- Obtained 87% accuracy in the model of emotion type extraction.

Food Recognition and Calorie Estimation Dec 2024
- Achieved an accuracy of 80% to recognize food items from images and estimate their calorie content

SKILLS

Technical: Machine Learning, Deep Learning, TensorFlow, Keras, Python3, Computer Vision, Matplotlib, Data Visualization, Model Optimization, Image Classification, C++, Flask, Docker

Language: Arabic: C2, French: B1, English: B2, German: B1

Publications/Resarch: Combinative Model Compression Approach for Enhancing 1D CNN Efficiency for EIT-based Hand Gesture Recognition on IoT Edge Devices

Other: Educational YouTube video