
Yoeel Dawod

Machine Learning Engineer



About Me

- i am a machine learning engineer passionate about utilizing the capabilities of machine learning in the business.
 - i have spent about 5 years learning the new immersing technologies in machine learning like neural network, computer vision and reinforcement learning
 - I can provide end-to-end problem-solving capabilities of AI models tailored to business needs, integrating them seamlessly into applications.
 - Leveraging interdisciplinary skills in software engineering, data science, and domain knowledge, I ensure optimized performance, scalability, and actionable insights.
 - Through effective team collaboration with data scientists, software engineers, and stakeholders, I deliver AI solutions that drive growth and innovation for the business.
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Educational Background



Egypt-Japan University of Science and Technology

2022 - 2026

B.Sc. Computer Science and Information Technology (Artificial Intelligence and Data Science)



Digital Egypt Pioneers Initiative: Microsoft
Machine Learning Engineer

2024 - 2025

Digital Egypt Pioneers Initiative provided by the Egyptian Ministry of Communication.

Skills

- Data Analysis (Python, Pandas, power BI, Matplotlib)
- Machine Learning (Python, Pytorch, Azure AI)
- Data Base (MS SQL Server, Mysql)
- Web development (MERN stack)

Work Experience

Titanic data analysis

October 2024 - February 2025

- an analysis on dataset related to the famous incident of the titanic ship.
- a project requested by the Digital Egypt Pioneers Initiative.
- extracting insights relating the number of survival and its relation to the sizes of the families.

Arabic Hand written Classification

September 2024 - December 2024

- a convolutional neural network to classify hand written Arabic letters.
- the model achieved a high accuracy in reading Arabic hand writing .

Offered Services

Machine Learning Model Development	End-to-End AI Solutions	Computer Vision
Design, develop, and optimize machine learning models for real-world applications, including regression, classification, clustering, and recommendation systems.	Build complete AI pipelines, from data ingestion and preprocessing to deployment and monitoring.	Build models for object detection, image classification, and image segmentation

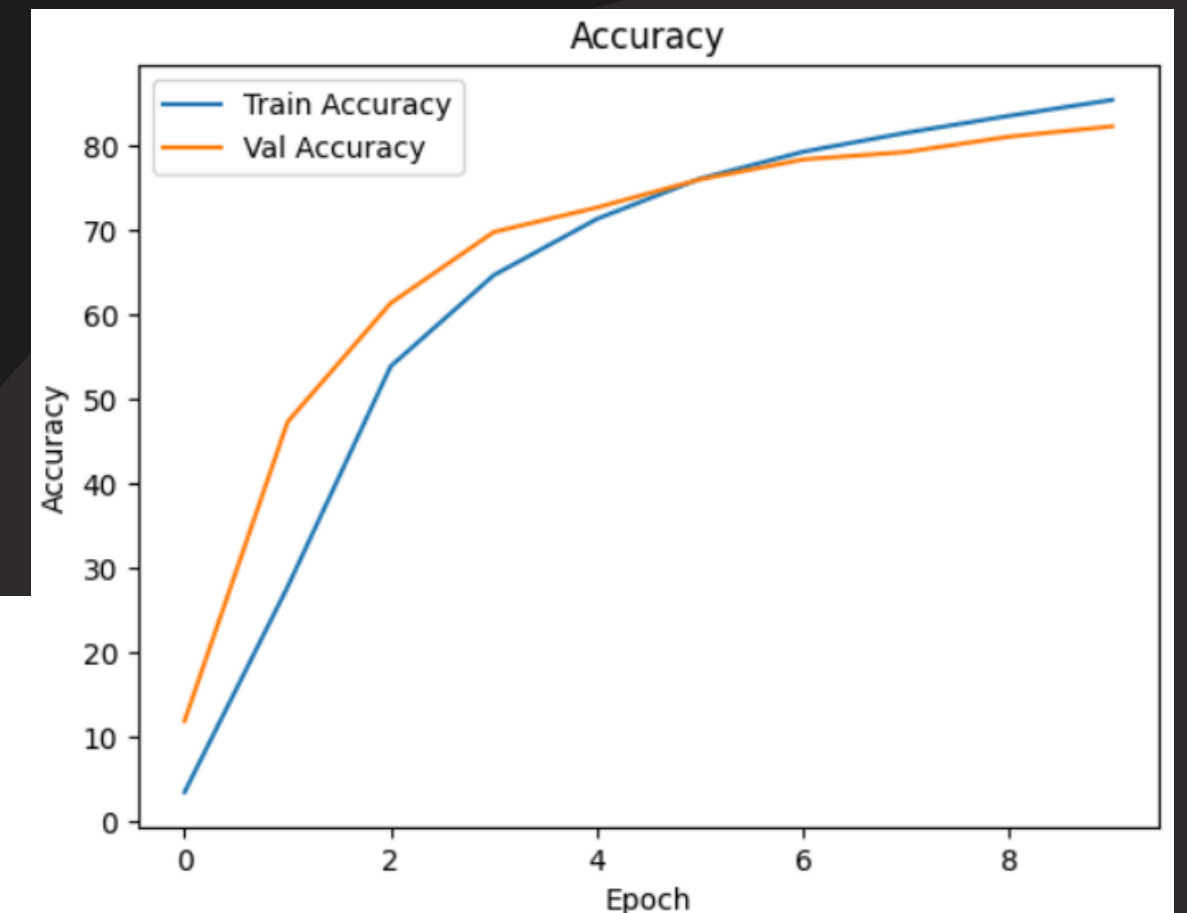
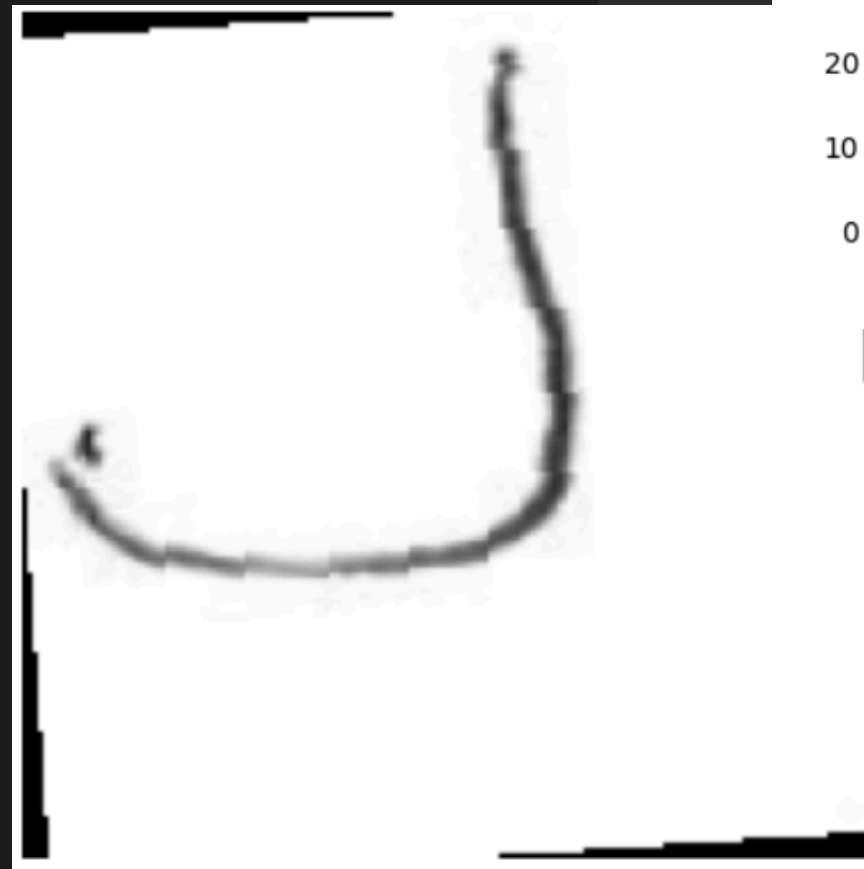
Projects

Arabic Handwritten classification

Developed a Convolutional Neural Network (CNN) using PyTorch to classify handwritten Arabic letters. The model was trained and evaluated on a curated dataset sourced from Kaggle, showcasing its ability to recognize Arabic characters with high accuracy. it achived an accuracy above 80% in classification.

Technologies Used

- PyTorch
- Python (NumPy, Pandas, Matplotlib)
- OpenCV (for image preprocessing)
- Kaggle API (for dataset management)



Projects

Encoder for Data Transformation

Developed and implemented a data encoding step as part of a preprocessing pipeline. The encoder transforms raw data into a structured and efficient format for downstream processing. This project demonstrates expertise in feature engineering and the optimization of machine learning workflows

Technologies Used

- Python (Pandas, NumPy) for encoding logic and data manipulation
- Scikit-learn for additional preprocessing utilities

```
class EncodingAnalyzer:

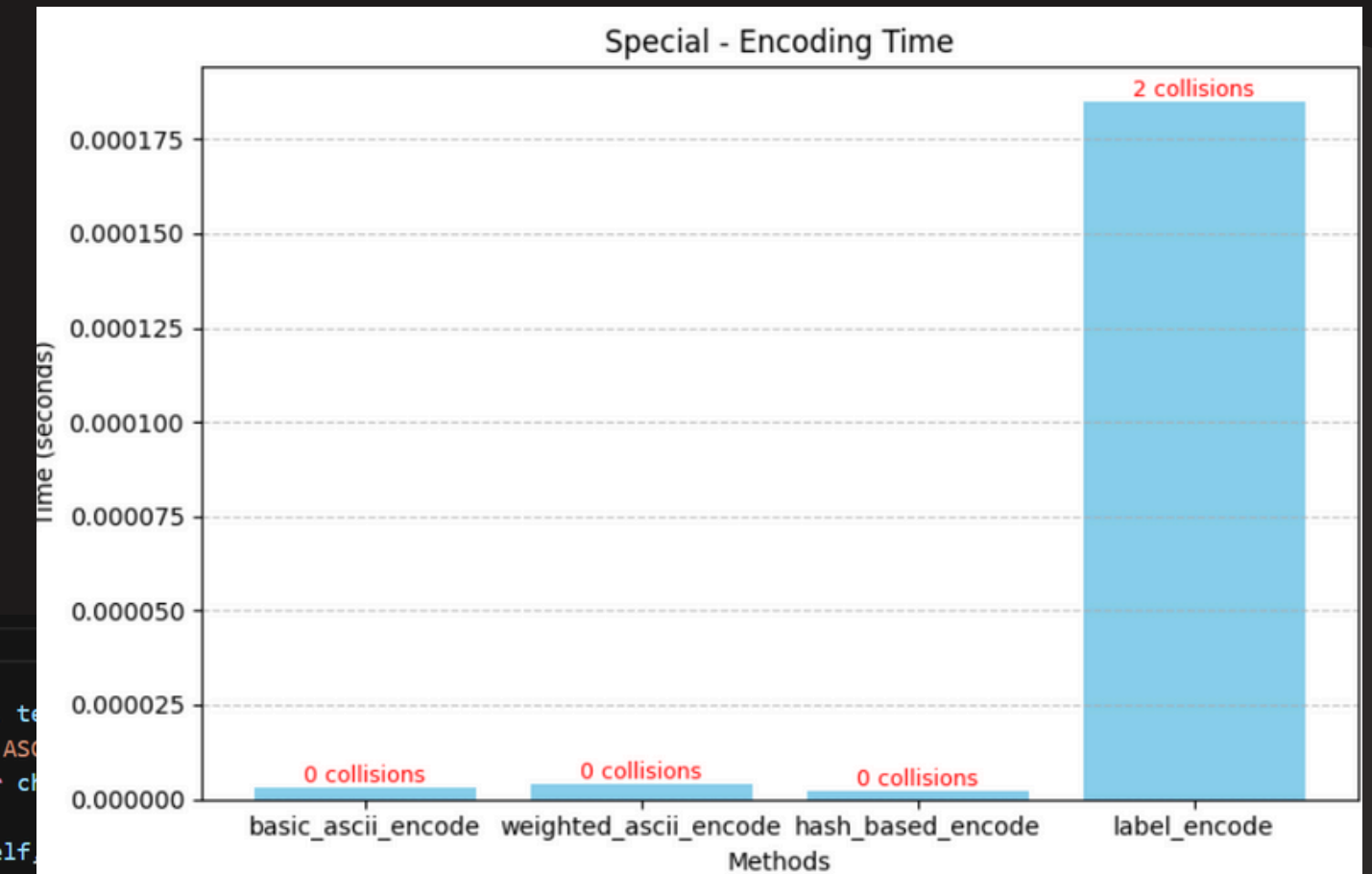
    def basic_ascii_encode(self, text):
        """Calculate the sum of ASCII values for each character in the text.
        This method is used for basic encoding and collision detection.
        """
        return sum(ord(char) for char in text)

    def weighted_ascii_encode(self, text):
        """Calculate weighted ASCII encoding.
        This method is used for weighted encoding and collision detection.
        """
        return sum((i + 1) * ord(char) for i, char in enumerate(text))

    def hash_based_encode(self, text, mod: int = 1_000_000_007):
        """Compute a hash-based encoding of the text.
        This method is used for hash-based encoding and collision detection.
        """
        hash_value = 0
        for char in text:
            hash_value = (hash_value * 31 + ord(char)) % mod
        return hash_value

    def label_encode(self, text):
        """Encode text using sklearn's LabelEncoder.
        This method is used for label encoding and collision detection.
        """
        encoder = LabelEncoder()
        unique_chars = sorted(set(text)) # Ensure consistent mapping
        encoder.fit(unique_chars)
        encoded = encoder.transform(list(text))
        return int(''.join(map(str, encoded))) # Return encoded value as a concatenated number

encodingAnalyzer = EncodingAnalyzer()
```



Achievements



yoel dawod

has successfully passed all requirements for

Microsoft Certified: Azure AI Fundamentals

Credential ID: CE19021471B91C8E

Certification number: 8F7A8D-4F543A

Earned on: June 20, 2024



✓ Online Verifiable

Demonstrated foundational knowledge of AI concepts and Azure services, including machine learning, natural language processing, computer vision, and responsible AI practices.

Testimonials

khadija mahmoud



Amazing job, Yoeel. Keep it up!

Let's Work Together



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