Diary Entry - Week 8

Date: 02-09-2024 to 06-09-2024

Summary:

Week 8 was marked by a deep dive into Dockerization, asynchronous task handling using Celery and Redis, an introduction to machine learning algorithms, and coursework focusing on model evaluation and selection.

Dockerization:

- Explored Docker, a popular platform for developing, shipping, and running applications inside containers.

- Learned the basics of containerization, including creating Docker images, running containers, and managing containerized applications.

Asynchronous Task Handling with Celery and Redis:

- Delved into asynchronous task processing using Celery, a distributed task queue, and Redis, an in-memory data store.

- Explored the benefits of asynchronous task execution for handling long-running and resource-intensive tasks in distributed applications.

Introduction to Machine Learning Algorithms:

- Received an introductory overview of machine learning algorithms, understanding their categorization into supervised, unsupervised, and reinforcement learning.

- Explored fundamental machine learning concepts, including feature engineering, model training, and model evaluation.

Filter, Padding, and Subsampling in Deep Learning:

- Studied essential techniques in deep learning, including filtering operations, padding strategies, and subsampling techniques.

- Understood the significance of these operations in convolutional neural networks (CNNs) and their impact on feature extraction and model performance.

Coding Challenge - Week 4:

- Participated in the Week 4 coding challenge, applying acquired knowledge to practical problem-solving scenarios.

- Engaged in hands-on coding exercises to implement model evaluation and selection techniques, enhancing proficiency in machine learning workflows.