

Self-Learning Module

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April 1, 2021

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0.1 Overview

This documentation was done by the author for her own self-study in the area of Artificial Intelligence (Deep Learning). This repo contains hands-on for model development and model deployment. All documentation was done using \LaTeX

0.2 Environment Setup

This section explains how the environment and dependencies of each model was created and installed.

0.2.1 Creating Environment

0.2.2 Installing Dependencies

0.3 Model Development

Hands-on creating Deep Learning model. All model was developed by using Keras, TensorFlow and PyTorch frameworks. The dataset used in each of the model based on open-source dataset from kaggle. Computer Vision (CV), Natural Language Processing (NLP) and Time Series Forecasting problem was implemented in her self-learning module.



Figure 1: Keras Framework



Figure 2: TensorFlow Framework



Figure 3: PyTorch Framework

0.3.1 Computer Vision

Image Classification

Object Detection

Image Segmentation

0.3.2 Natural Language Processing

Text Classification

Sentiment Analysis

0.3.3 Time Series Forecasting

0.4 Model Deployment

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0.4.1 FlaskAPI

0.4.2 FastAPI