Handwritten Essay Marking Software

Group 10

OUR TEAM

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PROBLEM IDENTIFICATION

- Marking numerous handwritten essays manually can be a daunting task
- Time-consuming manual process
- Inconsistent essay marking
- Bias and Human Error

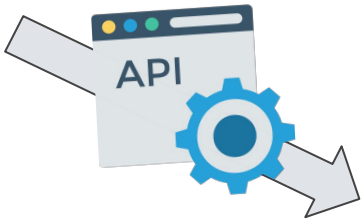
AIM

> Design and develop a web interface to automate the process of grading handwritten essays by leveraging machine learning algorithms while ensuring fairness and consistency in evaluations.

SOLUTION ARCHITECTURE

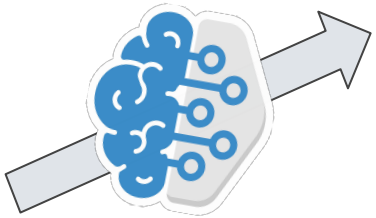
Essay Image

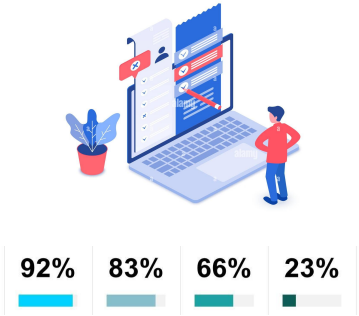
OCR



Digital Document

ML Model





Results On Web Interface

CURRENT PROGRESS

- Found a relevant dataset from kaggle
- Data preprocessed
- Tried different machine learning algorithms (LR, SVR, RF)
- Set up Azure OCR
- Started implementing the web interface

PROBLEMS ENCOUNTERED & SOLUTIONS

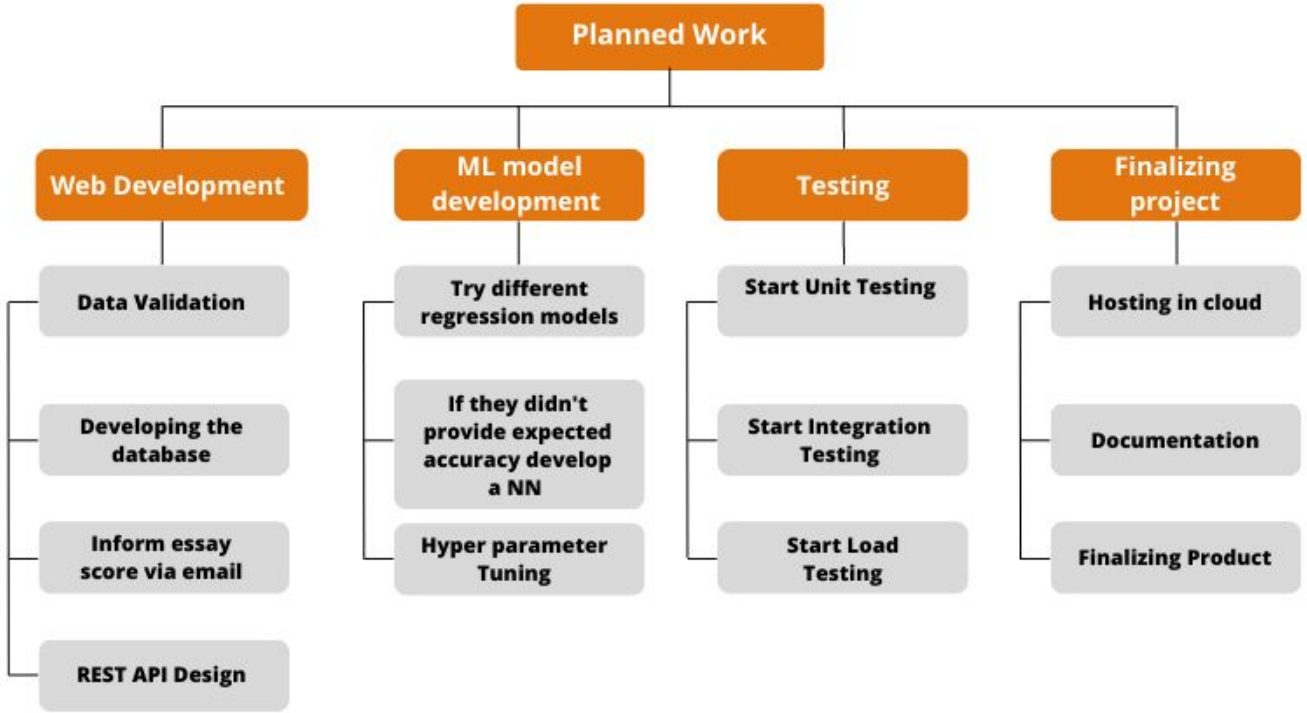
Problem

- Linear regression model gave high mean square error.
- The dataset consists of essay sets, each associated with a unique score range
- Inability to predict scores of essays written to any arbitrary topic

Solution

- Tried different machine learning algorithms.
- Scores of essays were normalized according to max and min value of each set
- Users are limited to chose few topics.

PLANNED WORK



EXTENDABILITY

- Offer constructive feedback and suggest strategies for enhancing essay writing skills.
- Expand the model's training dataset with a wider variety of topics to enhance its knowledge and comprehension across diverse subject areas.
- Enable the capability to upload multiple essays, allowing for individual scoring of each student's work.

THANK YOU !