

Personality Prediction

From Text Based on the MBTI Model

Student: Chew Kit Waye Andrel Supervisor: Associate Professor Erik Cambria

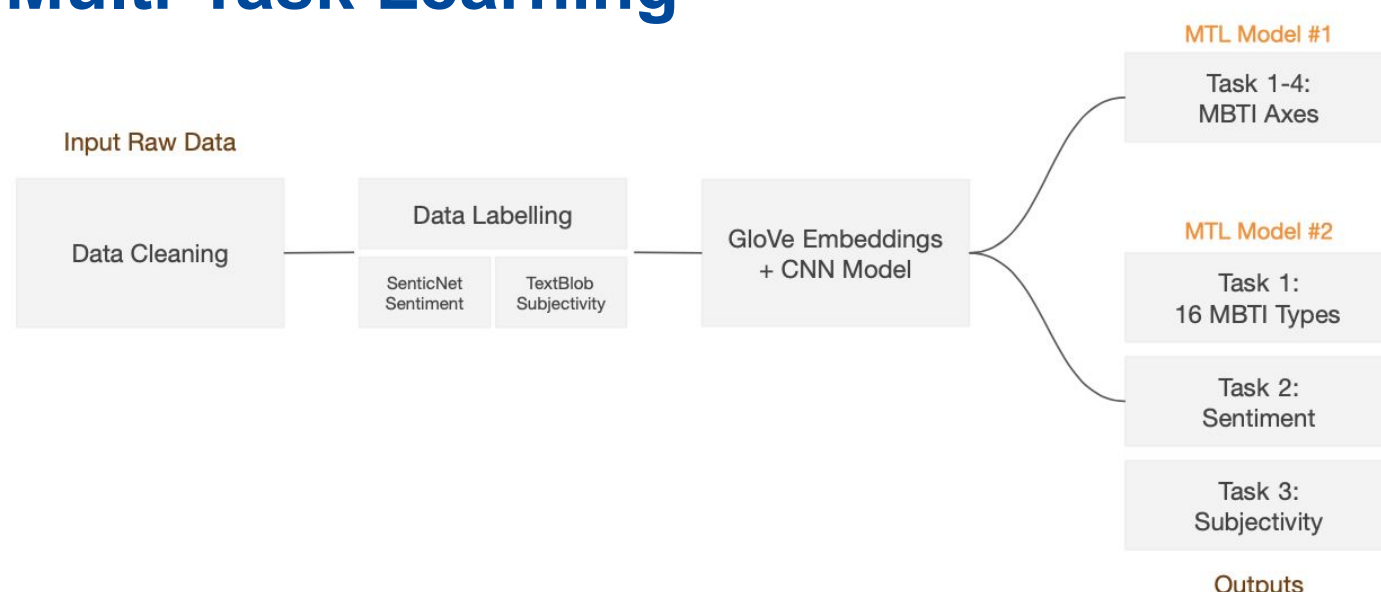
Project Objectives

Personality is the driving factor for human behavior. Distinguished thought patterns, emotionality, and temperament are some aspects that can be understood from a personality. Traditionally, one's personality can be obtained through online self-assessments. The aim of this project is to experiment with deep learning techniques to predict personalities of the Myer-Briggs Type Indicator (MBTI) Model, along with a prediction tool to mitigate response bias issues faced in online personality assessments. There are 16 different MBTI types, consisting of 4 distinctive personality axes.

Top 3 Model Accuracies

Model	I/E Axis	N/S Axis	T/F Axis	J/P Axis
Pre-trained DistilBERT	0.836	0.899	0.832	0.774
NeuralNet CNN	0.8	0.873	0.749	0.691
Multi-Task CNN	0.763	0.847	0.538	0.548

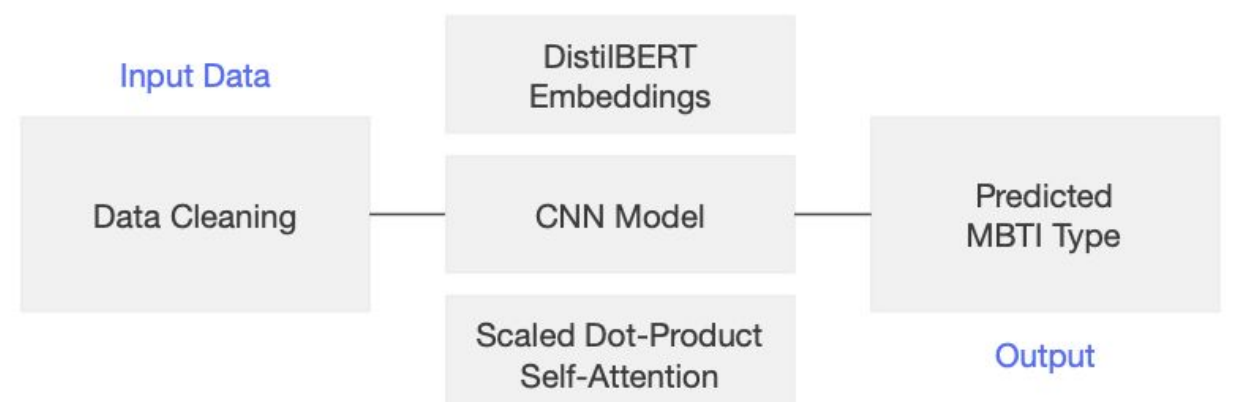
Multi-Task Learning



Methods

- Machine Learning
- Transformers & Transfer Learning
- Neural Networks with GloVe
- Ensemble Learning
- Multi-Task Learning
- Hybrid Model with Self-Attention

Hybrid Model with Self-Attention



MBTI Prediction Tool

The prediction tool contains 2 CNN models for personality prediction, each trained with a different dataset.

MBTI Prediction Tool

Let's guess your MBTI...

Enter some text here

dancing in the moonlight

Choose a Model for Prediction

- ☒ CNN + PersonalityCafe Data
☐ CNN + Reddit Data

Hmm..

The genie thinks you're an INFP + the words are Subjective and Neutral 😊