Ethics reporting form for EMATM0047

**Lead supervisor name**: Simon Lock

**Student name(s)**: Yujie Wang

**Student ID(s)**: 2217555

**Project title**: Public Sentiment Analysis-Based Cryptocurrency Action Recommendation Model Optimization

**Brief summary of project**:

The project explored the relationship between the social media data and Bitcoin price using statistical techniques and sentiment analysis, then used the best model and suitable public sentiment features to optimize the action recommendation model to maximize the profits.

**Brief summary of experiments run and data gathered by the student(s)**:

The data involves two fields: Financial data and Social media data. Financial data is the historical Bitcoin price data collected from Binance and Yahoo Finance, using the official API. Social media data encompasses tweets, Reddit posts, and Google Trends data. The tweets and Reddit posts are from the publicly available dataset on Kaggle. And Google Trends is collected using the Pytrends API. All of the data is over a period of 6 months, from 1st January to 30th June 2022.

**Has the project been completed and handed in as of today?** Yes

**If the project has been completed, please indicate one option with an X**.

\_\_\_\_\_ This project did not require ethical approval

\_\_X\_\_ This project fell within the scope of the ethics pre-approval process and I have attached the student(s)’ permission form(s)

\_\_\_\_\_ This project has been approved by the faculty ethics committee in a separate application.

\_\_\_\_\_ Other (please give details below)

# Guidance for supervisors

Please email this form to ayush.joshi@bristol.ac.uk by the 15/09/2023 (i.e one week after the dissertation deadline). If the project fell within the scope of the ethics pre-approval process, please also attach your student(s) permission form(s). If they are not available, please choose the “Other” option and give a brief explanation of why.

**Brief summary of the project**: This field is intended to contain any background necessary in order for the rest of the form’s content to make sense. There is no need to write more than a sentence or two.

**Brief summary of experiments run, and data gathered by student(s):** This field is intended to give us a quick idea of whether or not the project is likely to fall under ethics pre-approval process. There is no need to go into detail on methodology, as we should be able to get that detail from the project itself. For example, a sentence reading “Showed project to prospective users and asked for feedback” or “Filmed volunteers doing squats to obtain training data” would be fine. For more detail on what projects are covered by ethics pre-approval process please see the updated project handbook (available on BB). If you have any other questions, please contact ayush.joshi@bristol.ac.uk