

## National College of Ireland

### Project Submission Sheet

**Student Name:** Shreeraj Sangle  
**Student ID:** 23283254  
**Programme:** MSCAI1B **Year:** 2024-25  
**Module:** Machine Learning  
**Lecturer:** Jaswinder Singh  
**Submission Due Date:** 27/04/2025  
**Project Title:** Multi -Horizon Stock Price Forecasting using ARIMA, XGBoost and LSTM.  
**Word Count:** 6320

I hereby certify that the information contained in this (my submission) is information pertaining to research I conducted for this project. All information other than my own contribution will be fully referenced and listed in the relevant bibliography section at the rear of the project.

**ALL** internet material must be referenced in the references section. Students are encouraged to use the Harvard Referencing Standard supplied by the Library. To use other author's written or electronic work is illegal (plagiarism) and may result in disciplinary action. Students may be required to undergo a viva (oral examination) if there is suspicion about the validity of their submitted work.

**Signature:** Shreeraj Sangle

**Date:** 27/04/2025

#### PLEASE READ THE FOLLOWING INSTRUCTIONS:

1. Please attach a completed copy of this sheet to each project (including multiple copies).
2. Projects should be submitted to your Programme Coordinator.
3. **You must ensure that you retain a HARD COPY of ALL projects**, both for your own reference and in case a project is lost or mislaid. It is not sufficient to keep a copy on computer. Please do not bind projects or place in covers unless specifically requested.
4. You must ensure that all projects are submitted to your Programme Coordinator on or before the required submission date. **Late submissions will incur penalties.**
5. All projects must be submitted and passed in order to successfully complete the year. **Any project/assignment not submitted will be marked as a fail.**

#### Office Use Only

Signature:

Date:

Penalty Applied (if applicable):

## AI Acknowledgement Supplement

Machine Learning.

Multi -Horizon Stock Price Forecasting using  
ARIMA, XGBoost and LSTM.

Your Name/Student Number Course		Date
Shreeraj Sangle	MSCAI1B	27/04/25

This section is a supplement to the main assignment, to be used if AI was used in any capacity in the creation of your assignment; if you have queries about how to do this, please contact your lecturer. For an example of how to fill these sections out, please click [here](#).

### AI Acknowledgment

This section acknowledges the AI tools that were utilized in the process of completing this assignment.

Tool Name	Brief Description	Link to tool

### Description of AI Usage

This section provides a more detailed description of how the AI tools were used in the assignment. It includes information about the prompts given to the AI tool, the responses received, and how these responses were utilized or modified in the assignment. **One table should be used for each tool used.**

[Insert Tool Name]	
[Insert Description of use]	
[Insert Sample prompt]	[Insert Sample response]

### Evidence of AI Usage

This section includes evidence of significant prompts and responses used or generated through the AI tool. It should provide a clear understanding of the extent to which the AI tool was used in the assignment. Evidence may be attached via screenshots or text.

**Additional Evidence:**

[Place evidence here]

**Additional Evidence:**

[Place evidence here]