

Ethics ETH2425-6700 : Mr Mohammad Ali Jaber (Low risk: Green)

- Intraday Gold Price Forecasting

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Researcher	Mr Mohammad Ali Jaber
Student ID	2365662
Category	Postgraduate Taught (PGT) Student
Supervisor	Mr Vitaliy Milke
Project	Intraday Gold Price Forecasting
Faculty	Faculty of Science and Engineering
School	School of Computing and Information Science
Current status	Green (low risk) application logged

Ethics application

Researcher details

Researcher
Mr Mohammad Ali Jaber

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Faculty of Science and Engineering

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Anglia Ruskin University

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Category
Postgraduate Taught (PGT) Student

SID
2365662

Course Title
MSc Computer Science

Supervisor

[Mr Vitaliy Milke](#)

Research details

Title of your research project

Intraday Gold Price Forecasting

Will your research involve any internal or external collaborators?

No

If yes, provide their name(s). For students, please provide their SID numbers. For external collaborators, please provide institutional affiliation(s) and state where the Principal Investigator is based.

Start date of proposed research

09 Jun 2025

End date of proposed research

19 Sept 2025

Brief project summary

This project focuses on improving short-term gold price forecasting using advanced machine learning models. Gold is a highly traded commodity and its price can change quickly due to global events and economic shifts. Accurate short-term forecasts are valuable for traders and financial analysts who make quick decisions based on market trends.

Most existing forecasting models rely on daily or weekly price data, which may not capture fast, intraday fluctuations. This study aims to explore whether using more frequent data—recorded every 5 minutes, 15 minutes, and hourly—can lead to more accurate predictions.

The research will involve testing three different machine learning models, which will be trained and evaluated using six months of historical gold price data, collected from public financial sources. The models will be compared to see which performs best at each timeframe.

This project uses only publicly available financial data and does not involve any human participants or personal information. As such, it poses no ethical risks.

The goal is to determine whether high-frequency data and newer machine learning methods can improve intraday gold price forecasting. If successful, the findings could benefit financial professionals by offering better tools for real-time decision-making and contribute to future research in financial prediction.

Potential value of your proposed research

This research has strong potential value for the financial sector and broader economy. By improving the accuracy of short-term gold price forecasts using high-frequency data and advanced machine learning models, the project can support better decision-making for traders, investors, and financial institutions. More accurate intraday predictions can help reduce financial risk, enhance trading strategies, and increase market efficiency.

From a societal perspective, improved forecasting models contribute to economic stability by enabling more informed responses to rapid price changes in global commodities. Additionally, the research adds to academic knowledge by exploring the effectiveness of combining multiple timeframes and hybrid AI models—an area that is still underexplored in gold price forecasting.

Ultimately, this project helps bridge the gap between academic research and practical financial applications, supporting innovation in financial technology and data science.

Is your research externally funded?

No

Funder name

Is this from a bid submitted by ARU?

Research ethics checklist

Involve human participants?

No

Involve animals (dead or alive) or significant habitats?

No

Utilise data that is not publicly available?

No

Involve other organisations?

No

Take place outside of the UK?

No

Involve travelling to another country for the research?

No

Cause a negative impact on the environment (over and above that of normal daily activity)?

No

Please explain how you will manage this risk.

Involve genetic modification or use of genetically modified organisms?

No

Collect, obtain, use, store or dispose human biological material for any purpose or engage other parties to collect, obtain, use, store or dispose human biological material for any purpose or activity which are conducted, sponsored, supported or funded by ARU?

No

Involve medical devices?

No

Please explain how you will manage this risk.

Involve any other type of equipment?

No

Relate to military sites, personnel, equipment, or the defence industry?

No

Please explain how you will manage this risk.

Risk damage/disturbance to culturally, spiritually or historically significant artefacts/places, or human remains?

No

Please explain how you will manage this risk.

Contain research methodologies you, or members of your team, require training to carry out?

No

How will you ensure this training occurs?

Involve access to, or use (including internet use) of, material covered by the Counter Terrorism and Security Act (2015), or the Terrorism Act (2006), or which could be classified as security sensitive?

No

Please explain how you will access and store these materials.

Risk being construed as encouraging terrorism or inviting support for proscribed organisations and/or contain extremist views that risk drawing people into terrorism or are shared by extremist groups?

No

Please explain how you will manage this risk.

Involve research into a) activities which may be illegal and/or b) the observation, handling or storage (including export) of information or material which may be regarded as illegal?

No

Please explain how you will manage this risk.

Pose any ethical issue not covered elsewhere in this checklist?

No

Do you plan to submit your findings to an online data repository? e.g. Figshare

No

No

Does your research involve sensitive, potentially traumatic, or disturbing research areas which may impact your wellbeing?

No

Use Artificial Intelligence (AI) i.e. for literature review, data collection, experimental design, data analysis, output preparation, output writing, creative design or other uses?

No

External approval

Require approval from the NHS, Ministry of Defence, Ministry of Justice or social care?

No

Does your research involve individuals aged 16 years of age and over who lack 'capacity to consent' and therefore fall under the Mental Capacity Act (2005)?

No

Online research ethics training

I confirm have completed the online course

Confirmation of completion of online ethics training

Additional documents

Additional documents

Declaration

Is this a pilot study?

No

Are there any conflicts of interest?

No

Please provide further information.

I have completed a Risk Assessment (Health and Safety) and had it approved by the appropriate person.

A Risk Assessment is not required

Unless your research falls under the 'green' category, please clarify why a Risk Assessment is not required.

I have consulted the ARU Ethics Policy and ARU Code of Practice.

I understand that if a data breach occurs I will report this immediately to the ARU Information Compliance Team.

I understand that if there is an accident or other adverse event relating to the research I need to report this immediately.

I confirm that I will undertake the research as detailed here. I understand that I must abide by the terms of my ethical approval and that I may not amend the research without further ethical approval.

The research will comply with all Anglia Ruskin ethical guidance, all relevant legislation and any relevant professional or funding body ethical guidance.