Amendments ⌄

+ Create New Amendment   ⟳ Refresh

SUBMISSION ID	CREATED DATE TIME	CREATED BY	STATUS	DESCRIPTION	UPDATED DATE TIME	COORDIN...
			No items to display.			

Submission

Submission Ref	32731
Status	Approved
Submission Coordinator	Hamid Jahankhani hamid.jahankhani@northumbria.ac.uk

Name

qumer.arshad 🔽 🔍   qumer.arshad

Email   qumer.arshad@northumbria.ac.uk

Faculty

Engineering and Environment ⌄

Department

Computer and Information Sciences ⌄

Submitting As

PGT - Postgraduate Taught student ⌄

Externally Approved

☐ Note: ONLY tick this box if your project has already received full ethical approval from an external organisation

Module Level Approval

☐ Tick this box if staff and this submission refers to an entire module.

** Only to be used for low or medium risk projects as categorised by the diagnostic risk question set **

Module Code

LD7028   Help

Module Tutor

Hamid Jahankhani   Find   Help   Clear

Titl...   Staff at Partner Institute
De...   Campus Services
Em...   hamid.jahankhani@northumbria.ac.uk

Research Supervisor

Usman Butt   Find   Help   Clear

	Titl...	Academic
	De...	School of Computing, Engineering and Information Sciences
	Em...	usman.butt@northumbria.ac.uk

Named Submission Coordinator (PGT/UGT only)

hamid.jahankhani@northumbria.ac.uk

Find   Help

Clear

If you are an undergraduate or postgraduate taught student please select a Named Submission Coordinator. If you are not sure who this is please contact your Module tutor or Supervisor as appropriate.

Ethical Risk Level

Low

Click here to answer the ethical risk questions

Ethical Risk Diagnostic Questions and Responses ⌄

↻ Refresh

ID	QUESTION	ANSWER

No items to display.

Co-investigators ⌄

✚ Add   ✎ Edit   ✖ Delete   💾 Save   ↻ Refresh

NAME OF CO-INVESTIGATORS

No items to display.

G1: General Aims and Research Design (Mandatory) ⌄

Title

Title of your research project

Identifying Anomalies in 2-Factor Authentication with AI

Outline General Aims and Research Objectives

State your research aims/questions (maximum 500 words). This should provide the theoretical context within which the work is placed, and should include an evidence-based background, justification for the research, clearly stated hypotheses (if appropriate) and creative enquiry.

To develop a third approval layer including arranged Machine Learning models prepared to perceive peculiarities after the main affirmation stage.
Development of the 2FA testing Playground
Dataset Finalization and Pre-processing
Development of the Machine Learning Layer
Data Analytics using Statistical Tools and Graphs
Performance Testing in the Playground

G2: Research Activities (Mandatory) ⌄

Please give a detailed description of your research activities

Please provide a description of the study design, methodology (e.g. quantitative, qualitative, practice based), the sampling strategy, methods of data collection (e.g. survey, interview, experiment, observation, participatory), and analysis. Do sensitive topics such as trauma, bereavement, drug use, child abuse, pornography, extremism or radicalisation inform the research? If so have these been fully addressed?

The project has two basic modules. The modules are as follows:
The 2FA Playground
The 2FA playground will be, as the name suggests, a playground for testing and experimenting in this project. The playground will be enabled with two main features i.e., the 2FA auth. and request tracking. The language used for this research project will be Python, and for the development of this 2FA playground which is basically a web application, Flask, a python web framework will be employed. The reason behind using Python for the complete project is because it is much easier to implement Machine Learning models on Python with the currently available vast collection of easy-to-use libraries and tools for Machine Learning. Since the Machine Learning Model is implemented in Python, to integrate the model with a web interface will be a lot more forgiving if the web interface itself was built out of Python.
The 2FA Playground provides a platform where the user can edit and make changes in the code or change the Machine Learning model or the data set accordingly while providing a self-built dummy 2FA verification system independent of any third-party interference to keep the results and performance as unbiased and efficient as possible. The web app uses simple HTML pages only containing a form that take in the user's phone number and send him a verification code to verify it on the other form. The application uses page routing to provide other useful information for debugging as well.

G3: Research Data Management Plan (Mandatory) ⌄

Anonymising Data (mandatory)

Describe the arrangements for anonymising data and if not appropriate explain why this is and how it is covered in the informed consent obtained.

We are not gathering data from any user/ third party. The project will introduce third layer of two factor authentication using machine learning for that we will make our own dummy website so it will create new dummy data. No external user will be involved.

Storage Details (mandatory)

Describe the arrangements for the secure transport and storage of data collected and used during the study. You should explain what kind of storage you intend to use, e.g. cloud-based, portable hard drive, USB stick, and the protocols in place to keep the data secure.

If you have identified the requirement to collect 'Special category data', please specify any additional security arrangements you will use to keep this data secure.

The project uses Machine Learning to train the Logistic regression algorithm on a dummy data set created for this research. The 2FA playground also creates a log file on the server that records the user requests information in a .txt file that contains the results of the model prediction for each user request.

Retention and Disposal (mandatory)

✅ I confirm that I will comply with the University's data retention schedule and guidance.

Research Data Management link

General Data Protection Regulations including Data Protection link

Records Retention Schedule link

G4: Research Project Timescale (Mandatory) ⌄

Proposed Start Date

10/05/2021 📅

Proposed End Date

11/05/2021 📅

G5: Additional Information ⌄

☐ **Externally Funded**

External Funder ⌄

Please give details of your 'other' funder

Agresso Reference

☐ **Franchise Programme Organisation**

Please give details of your franchise organisation

Type a value

☐ **NHS Involvement**

Please give details of any NHS involvement

Type a value

☐ Clinical Trial(s)

Please give details of any Clinical Trial(s)

Type a value

☐ Medicinal Products

Please give details of any Medicinal Product(s)

G6: File Attachments ⌄

Additional files can be uploaded e.g. consent documentation, participant information sheet, etc.

Please note: It is best practice to combine all documents into one PDF (This avoids the reviewer having to op...

Go To Attachments

G7: Health and Safety (Mandatory) ⌄

☑ I confirm that I have read and understood the University's Health and Safety Policy.

☑ I confirm that I have read and understood the University's requirements for the mandatory completion of risk assessments in advance of any activity involving potential physical risk.

The University Health and Safety Policy can be accessed here

The University Risk Assessment Code of Practice can be accessed here

Please confirm either:

☐ There are PHYSICAL risks associated with the research project work and I confirm that a   risk assessment has been approved and attached to this ethics submission.

OR

☑ I can confirm that there are no physical risks associated with this project and so no risk assessments are required.

Students requiring assistance with completing their risk assessment should get in touch with their supervisor or module tutor as the first point of contact. If further assistance is needed, the Faculty Technician can provide further guidance.

For more specific risk assessments (e.g. lab work), especially where the project is Medium or High risk, you are required to consult the Faculty Technical Manager; your Supervisor/Module Tutor will be able to put you in touch.

If you have any questions or concerns, please contact the University Health and Safety Team by emailing CRHealthandSafety@northumbria.ac.uk

G8: Insurance (Mandatory)

☑ I have read and understood the University Insurance guidance document (link below):

Insurance Guidance link

If you think your activity may involve a High Risk rating or are unsure how to answer the statements – contact fi.insurance@northumbria.ac.uk with a copy of your research proposal for advice.

I confirm my work is covered by University Insurance. I confirm an insurance risk level of:

Low	⌄

If your insurance risk level is HIGH please attach details of exceptional insurance coverage:

Click here to attach a file

G9: Electronic Signature (Mandatory)

☑ I confirm my supervisor has reviewed the contents of this document

☑ I confirm I have assessed the ethical risk level of my work correctly and answered the above sections as fully and accurately as possible.

Full Name: qumer.arshad

Date: 10 May 2021 09:49:14

PDF Version

Create PDF

No items to display.

Review Comments, Conditions and Outcomes

Log of any Ethical Incidents

Log New Incident

INCIDEN...	CREATED DATE TIME	CREATOR NAME	COMPLAINANT DETAILS
		No items to display.	

Title and Objectives (see G1)

➕ Add   💾 Save

Reviewer A: [   ]   **Reviewer B:** [   ]

e.g. Are the research question and/or study aims clear?

DATE	ROLE	COMMENT
	No items to display.	

Proposed Methodology and Analysis (see G2)

➕ Add   💾 Save

Reviewer A: [   ]   **Reviewer B:** [   ]

e.g. Is the design appropriate to the research question?
Are the methods of data analysis appropriate to the research question?

DATE	ROLE	COMMENT
	No items to display.	

Sample and Recruitment (see M1)

➕ Add   💾 Save

Reviewer A: [   ]   **Reviewer B:** [   ]

e.g. Is the sampling approach appropriate to the design?
Is the sample sufficient and achievable?
Is the process of recruitment clearly explained?
Are participants receiving payments for taking part, and if so is the payment appropriate?
If the DBS is ticked, has the appropriate information been included?

DATE	ROLE	COMMENT
	No items to display.	

Consent (see M1)

➕ Add   💾 Save

Reviewer A: [   ]   **Reviewer B:** [   ]

e.g. Is the approach to consent seeking clear?
Is consent from parents/ carers/ guardians required?
Are all necessary recruitment and informed consent documentation included (e.g. letters of permission, letters of invitation)
Is the information sheet adequate to ensure informed consent?

Are the consent form(s) appropriate?

DATE	ROLE	COMMENT
	No items to display.	

Researcher and Participant Safety (see M1) ⌄

➕ Add   💾 Save

Reviewer A: [⌄]   **Reviewer B:** [⌄]

e.g. Is there any risk of physical harm for the researcher(s) or the participants and if so what attempts have been made to alleviate or minimise them?
Have Risk Assessments been referred to where appropriate?

DATE	ROLE	COMMENT
	No items to display.	

Research Activities (see G2-G8, M1-M5, H1-H5) ⌄

➕ Add   💾 Save

Reviewer A: [⌄]   **Reviewer B:** [⌄]

e.g. Are the research tasks described clearly?
Do sensitive topics such as trauma, bereavement, drug use, child abuse, pornography or extremism/ radicalism inform the research? If so have these been fully addressed? (and we can use this to amend the information on risk levels on the form)Is there any risk that the tasks may cause psychological harm and if so what attempts have been made to alleviate or minimise them?

DATE	ROLE	COMMENT
	No items to display.	

Data Management Plan (see G3) ⌄

➕ Add   💾 Save

Reviewer A: [⌄]   **Reviewer B:** [⌄]

e.g. Have sufficient steps been taken to ensure participant anonymity/confidentiality of data?
Are the arrangements for data storage and disposal clearly outlined?
Are these arrangements in line with University and/or the funding body requirements?

DATE	ROLE	COMMENT
	No items to display.	

File Attachments (see G6) ⌄

➕ Add   💾 Save

Reviewer A: [⌄]   **Reviewer B:** [⌄]

Please note: where file attachments have not been added because they are not required, please select Approve.

COMMENT BY	DATE	ROLE	COMMENT
		No items to display.	

General Comments (see Help) ⌄

DATE	ROLE	COMMENT
No items to display.		

DATE	ROLE	COMMENT
No items to display.		