XIAMEN UNIVERSITY MALAYSIA
厦门大学 馬來西亞分校

ACADEMIC PROJECT LOG BOOK

Name : Siau Soon Hong

Student ID : AIT2109611

Programme : AIT

Academic Session : 2024/09

Course Code / Course Name : AIT410 Thesis II

Thesis Title : FAKE NEWS DETECTION USING HYBRID APPROACH IN NATURAL LANGUAGE PROCESSING

Supervisor's Name : Dr Zafar Raheel

Supervisor's Signature & Date :

Declaration
I hereby declare that all information provided is true.

Student's Signature :

Date : 15/12/24

Instructions to Student

- Academic Project Log Book (hereafter "the log book") has been designed for the students to record research activities, progress, and discussions of their academic research project.

- A student must **write** clearly all the research activities, problems faced, ideas and proposed solutions, details of discussion with the supervisor in the log book.

- The log book's format cannot be changed.

- The log book must be handed to the Supervisor for verification on **a weekly basis**.
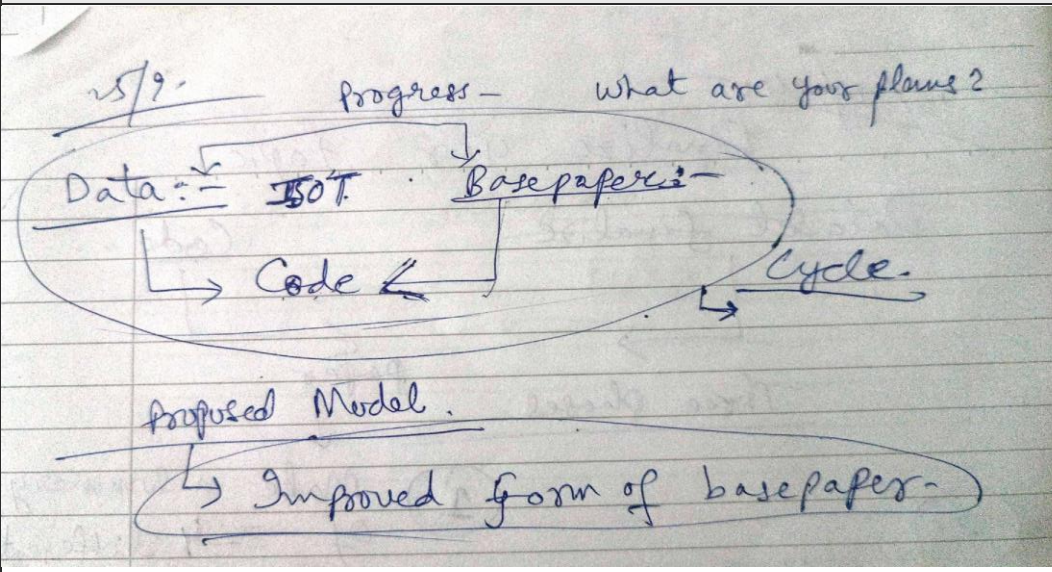
Academic Project Log

Week : 1 **Start Date :** 15/09/24 **End Date :** 21/09/24

Date	Activity Report
	- *Conduct a preliminary review of literature on fake news detection*
	Supervisory Meeting Record
	- *No meeting as timetable is still under adjustment*

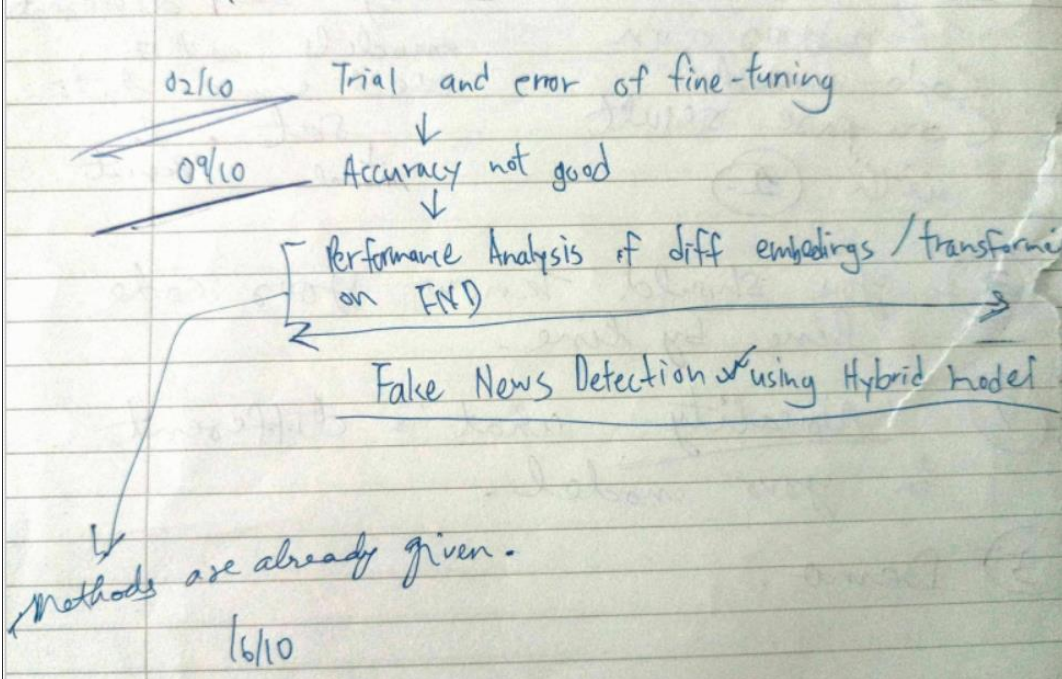(Attachment can be attached whenever necessary)

Academic Project Log

Week : 2   **Start Date :** 22/09/24   **End Date :** 28/09/24

Date	Activity Report
	- *Defined research objectives and research questions* - *Narrowing down the research scope to focus on hybrid models.* - *Identifying suitable datasets for fake news detection.*

Supervisory Meeting Record

(Attachment can be attached whenever necessary)
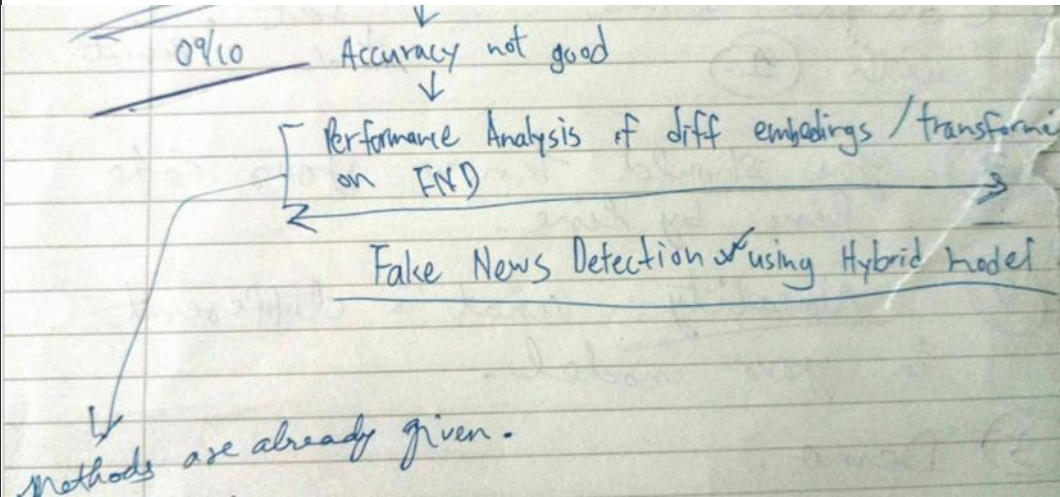
Academic Project Log

Week : 3   **Start Date :** 29/09/24   **End Date :** 05/10/24

Date	Activity Report
	- *Begin preprocessing the datasets for analysis* - *Develop baseline models for fake news detection.*

Supervisory Meeting Record

02/10 — Trial and error of fine-tuning
↓
09/10 — Accuracy not good
↓
Performance Analysis of diff embedings / transforme on FND

Fake News Detection using Hybrid model

Methods are already given.

16/10

(Attachment can be attached whenever necessary)

Academic Project Log

Week :   4   **Start Date :**   06/10/24   **End Date :**   12/10/24

Date	Activity Report
	- *Compare performance metrics for deep learning classifiers*

Supervisory Meeting Record

09/10 → Accuracy not good

Performance Analysis of diff embedings / transforme on FND

Fake News Detection using Hybrid model

methods are already given.

(Attachment can be attached whenever necessary)

Academic Project Log

Week :   5   **Start Date :** _13/10/24_   **End Date :** _19/10/24_

Date	Activity Report
	- *Explore initial architectures for hybrid models* - *Explain the novelty of proposed model compare to state-of-art model*

Supervisory Meeting Record

16/10/24

Finalize your topic.

Dataset finalize.   Code.

Three phases.   Paper

① Make a summary of 3-4 different models who used same data set.
model   Result.

② Run your own code and compare result with ①.

③ you should know your code line by line.

④ Novality what is different in your model.

⑤ Demo.

(Attachment can be attached whenever necessary)

Academic Project Log

Week :   6   **Start Date :**   20/10/24   **End Date :**   26/10/24

Date	Activity Report
	- *Analyze strengths and limitations of existing architectures*

Supervisory Meeting Record

- *Drafted a summary of findings for thesis documentation*
- *Literature review provided clarity on model selection*

(Attachment can be attached whenever necessary)

Academic Project Log

Week :   7   **Start Date :**   27/10/24   **End Date :**   02/11/24

Date	Activity Report
	- *Selected TCN, BiLSTM, and Attention mechanisms for hybrid model design* - *Identified gaps in existing research*

Supervisory Meeting Record

- *supervisor's approval of proposed model*

(Attachment can be attached whenever necessary)

Academic Project Log

Week : 8 **Start Date :** 03/11/24 **End Date :** 09/11/24

Date	Activity Report
	- *Understanding the integration of TCN and BiLSTM*
	Supervisory Meeting Record
	- *Drafted initial diagrams for model flow*

(Attachment can be attached whenever necessary)

Academic Project Log

Week :   9   **Start Date :**   10/11/24   **End Date :**   16/11/24

Date	Activity Report
	- *Designed hybrid architecture combining TCN, BiLSTM, and Attention layers*

Supervisory Meeting Record
- *No meeting as progress still on previous discussion*

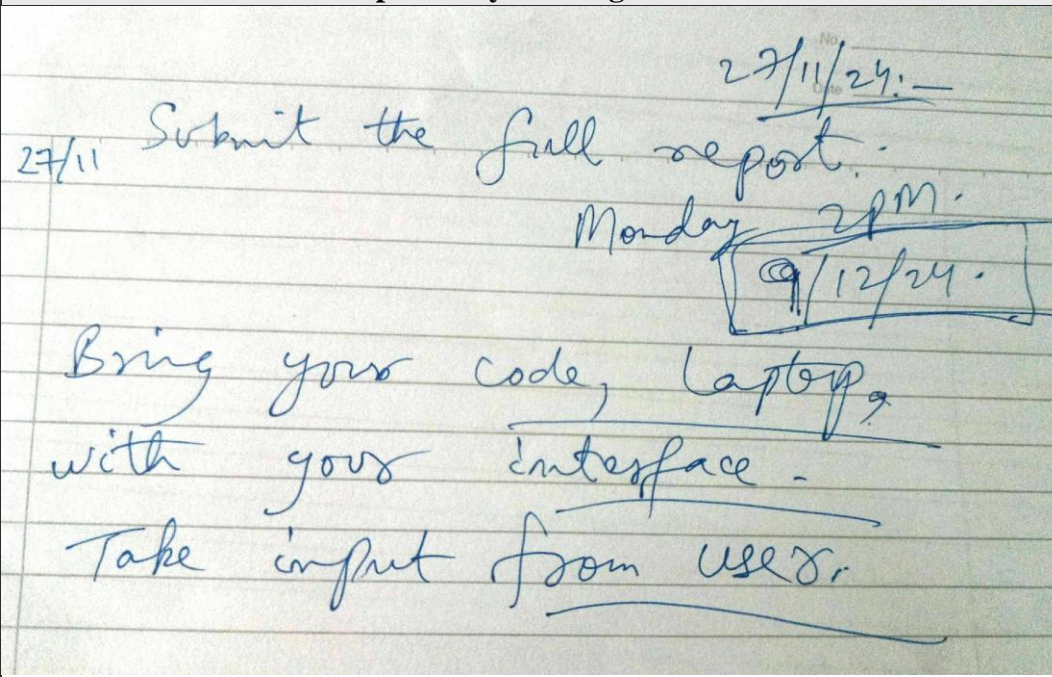(Attachment can be attached whenever necessary)

Academic Project Log

Week : 10 **Start Date :** 17/11/24 **End Date :** 23/11/24

Date	Activity Report
	- *Finalized architecture blueprint*
	Supervisory Meeting Record
	- *Designing an efficient way to integrate attention mechanisms*

(Attachment can be attached whenever necessary)

Academic Project Log

Week : 11   **Start Date :** 24/11/24   **End Date :** 30/11/24

Date	Activity Report
	- *Evaluated the model on test data using accuracy, precision, recall, and F1-score.* - *Analyzed confusion matrix*

Supervisory Meeting Record

27/11

27/11/24 :—

Submit the full report.

Monday 2PM.

9/12/24.

Bring your code, laptop, with your interface.

Take input from user.

(Attachment can be attached whenever necessary)

Academic Project Log

Week :   12   **Start Date :**   01/12/24   **End Date :**   07/12/24

Date	Activity Report
	- *Developing GUI* - *Typing of Thesis Report*

	Supervisory Meeting Record
	- *Continuing Report Typing* - *Demo of GUI*

(Attachment can be attached whenever necessary)

Academic Project Log

Week : 13　　**Start Date :** ___08/12/24___　　**End Date :** ___14/12/24___

Date	Activity Report
	- *Initial draft of thesis completed*

Supervisory Meeting Record
- *Revised thesis based on supervisor's feedback*

(Attachment can be attached whenever necessary)

Academic Project Log

Week :   14   **Start Date :**   15/12/24   **End Date :**   21/12/24

Date	Activity Report
	- *Prepare presentation slides*
	Supervisory Meeting Record
	- *Review and sign all material before submitting*

(Attachment can be attached whenever necessary)