

Configuration Manual

MSc Research Project
Master of Science in Artificial Intelligence

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MSc Project Submission Sheet
School of Computing



Student Name:Moe Ni Ni Chaw.....
Student ID:23410116.....
Programme:**Year:**2025.....
Master of Science in Artificial Intelligence .
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Module: **Practicum 2**
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Lecturer : Devanshu Anand
Submission Due Date:15.9.2025.....
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Project Title: Daily Human behaviors Based Personalized health Recommendation.....
.....
Word Count: **Page Count:**

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Date:15.9.2025.....
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Configuration Manual

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1 System Overview

The system suggested is a Daily Human Behaviors-Based Personalized Health Recommendation System, that combines Long Short-Term Memory (LSTM) to classify unhealthy behavior in sequences and Reinforcement Learning (RL) to create dynamic suggestions each day. The LSTM machine will take the data collected about daily activities, such as steps, hours of sleep, calorie intake, and heart rates, and analyze it in an attempt to recognize the pattern that displays a bad habit of health. Subsequently, the RL agent makes actionable but individualized recommendations on how to attain a healthy behavior based on the feedback made by the users, and would adjust these suggestions depending on user feedback.

2 Requirement

Software Requirements:

- OS: Windows 10 / macOS / Linux
- Python 3.12+
- Required Python Libraries:
 - tensorflow (for LSTM model loading & inference)
 - numpy
 - pandas
 - scikit-learn
 - matplotlib / seaborn (for visualization)

Development Environment:

- Jupyter Notebook / PyCharm / VS Code
- Anaconda for package & environment management

3 System Configuration

Step 1 – Create Virtual Environment:

```
conda create --name health_env python=3.12
conda activate health_env
```

```
cd habits_recommendation_system
```

Step 2 – Install dependencies

```
pip install tensorflow==2.15.0 numpy==1.26.4 pandas==2.2.2 scikit-learn==1.4.2  
matplotlib==3.8.4 seaborn==0.13.2 h5py==3.11.0
```

Step 3 – Load Pre-trained LSTM Model:

```
models/best_deep_lstm_model.h5
```

Step 4 – Run Demo Application:

```
python demo.py
```