|  |  |
| --- | --- |
| iiitu-logo-large-final-1000x1000.jpg | **Indian Institute of Information Technology Una Himachal Pradesh**  An Institute of National Importance under MoE  **Saloh, Una – 177 209**  **Website:** www.iiitu.ac.in |

**PRACTICUM-IV Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Name:** | Keshav Agarwal | **Roll No:** | 22136 |
| **Batch:** | B-26 | **Semester:** | IV |
| **Branch:** | CSE | **Mentor Name:** | Dr. Shivdutt Sharma |

1. **Broad Area of the Project :-**

HeartGuard focuses on the development of a robust machine learning model designed to predict heart disease risks. With a growing global concern for cardiovascular health, early detection and preventative measures are essential.

1. **Project Title :-**

HeartGuard :- Predictive Modelling for Cardiovascular Wellness

1. **Project/Problem Description and Relevance :-**

Heart disease is a prevalent and life-threatening health condition that requires early detection for effective treatment. Machine learning models have shown promise in predicting heart disease, offering a proactive approach to healthcare.

1. **Proposed Methodology (Block schematic/algorithm) :-**

Model Training

Model Selection

Dataset

Model Testing

Accuracy Prediction

Model Deployment

1. **Skillset required to solve/address the problem :-**

* Machine Learning.
* Feature Engineering.
* Data Visualization.
* Domain Knowledge (Healthcare).
* Model Evaluation.
* Ethics and Privacy Awareness.

1. **Practicum Schedule :-**

|  |  |
| --- | --- |
| Start Date Practicum-IV: | 08, Jan.’24 |
| End Date of Practicum-IV: | 29, Apr.’24 |
| Total No. of Weeks: | 16 |
| Practicum Plan Submission | 15, Jan.’24 |
| Review – I | 2, Mar.’24 |
| Review – II | 6, Apr.’24 |
| Submission of Revised Report | 22, Apr. 24 |
| External Examination | 26, Apr.’24 |

1. **Weekly Milestones :-**

|  |  |
| --- | --- |
| **Week** | **Major Activities to be Completed** |
| Week 1 | Domain Exploration for ideas. |
| Week 2 | Idea Exploration. |
| Week 3 | Exploration different platforms for collecting data. |
| Week 4 | Dataset filtration. |
| Week 5 | Explore the Basics of Python and ML. |
| Week 6 | Explore the Basics of ML Algorithms. |
| Week 7 | Training of the model. |
| Week 8 | Training of the model. |
| Week 9 | Test and tune model to increase accuracy and finalize model. |
| Week 10 | Testing and debugging. |
| Week 11 | Finalize model after testing. |
| Week 12 | Deployment. |
| Week 13 | Ethical considerations. |
| Week 14 | Updates and improvements. |
| Week 15 | Updates and improvements. |
| Week 16 | Finalize all aspects of the project. |

**Student Signature**

**Mentor Signature**