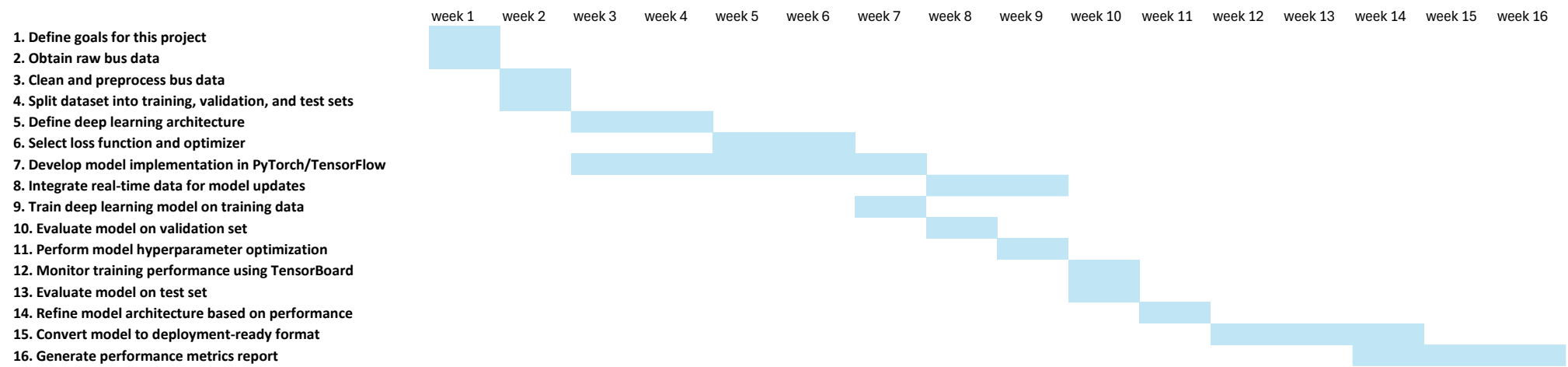**Team: Dhriti Gada**

Since I am the only member of my team, all of these tasks are assigned to me.

Milestone List

1. **Data Collection and Preprocessing**
2. **Model Design and Development**
3. **Model Training and Evaluation**
4. **Model Refinement and Deployment**
5. **Documentation and Reporting**

Gantt Chart

Task	week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8	week 9	week 10	week 11	week 12	week 13	week 14	week 15	week 16
1. Define goals for this project	▓															
2. Obtain raw bus data	▓															
3. Clean and preprocess bus data		▓														
4. Split dataset into training, validation, and test sets		▓														
5. Define deep learning architecture			▓	▓												
6. Select loss function and optimizer				▓	▓											
7. Develop model implementation in PyTorch/TensorFlow			▓	▓	▓	▓										
8. Integrate real-time data for model updates								▓	▓							
9. Train deep learning model on training data							▓	▓								
10. Evaluate model on validation set								▓	▓							
11. Perform model hyperparameter optimization									▓	▓						
12. Monitor training performance using TensorBoard										▓	▓					
13. Evaluate model on test set											▓	▓				
14. Refine model architecture based on performance												▓	▓			
15. Convert model to deployment-ready format														▓	▓	
16. Generate performance metrics report															▓	▓

Effort Matrix

1. Define goals for this project	4%
2. Obtain raw bus data	2%
3. Clean and preprocess bus data	3%
4. Split dataset into training, validation, and test sets	1%
5. Define deep learning architecture	8%
6. Select loss function and optimizer	6%
7. Develop model implementation in PyTorch/TensorFlow	10%
8. Integrate real-time data for model updates	10%
9. Train deep learning model on training data	2%
10. Evaluate model on validation set	2%
11. Perform model hyperparameter optimization	9%
12. Monitor training performance using TensorBoard	10%
13. Evaluate model on test set	2%
14. Refine model architecture based on performance	12%
15. Convert model to deployment-ready format	10%
16. Generate performance metrics report	9%
total	100%