

Brain Tumor Detector Project Timeline

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Biweekly Outline

Weeks 1-2: Project start point and Data Collection

Tasks

- Set up the project repository.
- Collect and download the brain tumor dataset from Kaggle[?].
- Upload the dataset to Google Colab for initial exploration.
- Data visualization and understanding.
- Begin the exploratory data analysis (EDA) to understand the dataset's characteristics.

Estimated Hours

- Project setup: 2 hours
- Visualization and understanding: 5 hours
- Dataset collection and upload: 5 hours
- Initial EDA: 5 hours

Weeks 3-4: Data Preprocessing and Model Selection

Tasks

- Preprocess the dataset for training, including resizing, normalization, and augmentation.
- Split the dataset into training and testing sets.
- Implement and train traditional machine learning models (SVM, Random Forest).
- Begin the implementation of Convolutional Neural Networks (CNNs) for deep learning.

Estimated Hours

- Data preprocessing: 5 hours
- Traditional ML model implementation and training: 8 hours
- CNN implementation: 8 hours

Weeks 5-6: Model Evaluation and Web Interface Development

Tasks

- Evaluate the performance of traditional ML models and CNNs on the testing set.
- Select the most accurate model for brain tumor classification.
- Start the development of the web interface using HTML, CSS, and JavaScript/Flask.
- Implement backend functionality for image processing and model integration.

Estimated Hours

- Model evaluation: 5 hours
- Web interface development (frontend): 8 hours
- Backend implementation: 8 hours

Weeks 7-8: Integration with ChatGPT API and Testing

Tasks

- Integrate the web application with the ChatGPT API for generating advice.
- Test the end-to-end functionality of the system, including image upload, classification, and ChatGPT interaction.
- Address any issues identified during testing.

Estimated Hours

- ChatGPT API integration: 8 hours
- Testing and issue resolution: 8 hours

Weeks 9-10: Final Adjustments and Presentation Preparation

Tasks

- Make final adjustments to the web interface and code.
- Prepare the presentation slides with key project details.
- Rehearse the presentation to ensure smooth delivery.

Estimated Hours

- Final adjustments: 8 hours
- Presentation preparation: 6 hours
- Rehearsal: 6 hours

Week 11: Project Submission and Presentation

Tasks

- Submit the final project on the designated platform.
- Deliver the project presentation, showcasing the implemented system and results.

Estimated Hours

- Project submission: 3 hours
- Presentation: 1 hour

Total Time expected in this project

Approximately 100 hours of total work.