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Progress Report – I

Project Title - Detection and Classification of Brain Hemorrhages

Introduction:

The project aims to develop an automated system for detecting and classifying brain hemorrhages using medical imaging and machine learning techniques. The ultimate goal is to assist healthcare professionals in diagnosing and treating patients more efficiently.

Project Goals:

Develop a robust algorithm for detecting brain hemorrhages
Classify the types of hemorrhages with a high accuracy
Integrate the algorithm into a user-friendly web application for healthcare use

Tasks Accomplished:

Project Initialization	Defined the scope and objectives. Outlined the project timeline and milestones.
Research and Data Collection	Conducted a literature review on brain hemorrhages and existing classification methods. Identified potential data sources for medical images.
Technology	Set up the development environment. Installed necessary software and libraries (Python, TensorFlow, Keras, OpenCV).
Data Exploration	Acquired a sample dataset. Conducted basic data preprocessing and analysis.
Challenges Faced	Limited access to high-quality labeled medical imaging data. Requirement for domain-specific knowledge.

Current Status:

The project is in the initial phase, with a solid foundation laid in terms of research, data collection, and environment setup.

Forward Plan:

Data Acquisition	• Secure a larger dataset. • Implement data augmentation techniques.
Model Development	• Develop initial classification models. • Experiment with neural network architectures.
Documentation	• Maintain detailed documentation of progress.