Project Initialization and Planning Phase

Date	11 July 2024
Team ID	SWTID1720012105
Project Title	WarLens: Transfer Learning for Event Classification in Conflict Zones
Maximum Marks	3 Marks

Project Proposal (Proposed Solution) template

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

Project Overview	
Objective	The primary objective of WarLens is to develop a machine learning model utilizing transfer learning techniques to accurately classify events in conflict zones. This will aid in providing timely and actionable intelligence to humanitarian organizations and policymakers.
Scope	• Development and training of a transfer learning model. • Integration of the model into a user-friendly interface for real-time event classification. • Validation and testing using historical and real-time data from conflict zones.
Problem Statement	
Description	Conflict zones often experience a wide range of events that require immediate attention and action. Current methods for event classification are often slow, inefficient, and lack the ability to adapt quickly to new data.
Impact	Enhance the speed and accuracy of event classification in conflict zones.
Proposed Solution	

Approach	• Data Collection: Gathering and preprocessing data from various sources, like kaggle,etc. • Model Development: Selecting and fine-tuning a pre-trained model for event classification. • Integration: Developing an interface for users to interact with the model and receive classifications in real-time. • Testing and Validation: Ensuring the model's accuracy and reliability through rigorous testing.
Key Features	• Transfer Learning: Utilizes pre-trained models to reduce training time and improve accuracy. • Real-time Classification: Provides instant event classification, critical for timely decision-making. • User-Friendly Interface: Ensures ease of use for non-technical users such as humanitarian workers. • Scalability: Designed to handle increasing amounts of data and adapt to new types of events. • Comprehensive Data Sources: Incorporates diverse data inputs for a holistic view of events.

Resource Requirements

Resource Type	**Description**	**Specification/Allocation**
Hardware		
Computing Resources	CPU/GPU specifications, number of cores	2 x NVIDIA V100 GPUs
Memory	RAM specifications	16 GB
Storage	Disk space for data, models, and logs	1 TB SSD
Software		
Frameworks	Python frameworks	Flask
Libraries	Additional libraries	Tensorflow
Development Environment	IDE, version control	Google Collab notebook, Git
Data		

Data	Source, size, format	Kaggle dataset, 84,151,603 images