



Face Recognition System

01.12.2023

—

Devansh Shah and Devasy Patel

Specifications

1. Web Camera: [Logitech 1080p Web Camera](#)
2. System: having maximum clock speed ≥ 3.5 GHz
3. Database: MongoDB or as per requirements
4. GPU: about 16 GB GPU RAM (We aren't sure regarding size of dataset and optimal batch size so 16 seems a safe value)
5. Normal RAM: ≥ 16 GB
6. Setting up jupyter server that can be remotely accessible

Project Plan

Setting up the requirements

I am requesting that you please set up the above mentioned requirements by January


Phase-I: Collection of dataset

This phase involves collecting a dataset of faces. The dataset should be large enough to train a robust face recognition model. The deadline for this phase is the end of January.

Phase-II: Prototype implementation of FaceRec System

This phase involves developing a prototype implementation of the FaceRec System. This includes setting up the data pipeline, training a face recognition model, and developing an interface for the system. The deadline for this phase is February-Mid March.

Phase-III: Implementing optimization techniques like LRU



This phase involves implementing optimization techniques like LRU to improve the performance of the FaceRec System. The deadline for this phase is Mid April.

Phase-IV: Integration of optimization techniques with the Model training and inference

This phase involves integrating the optimization techniques with the model training and inference processes. This includes modifying the training and inference code to take advantage of the optimization techniques. The deadline for this phase is April end.

Phase-V: Deployment of the existing model.

This phase involves deploying the existing model to a production environment. This includes setting up the infrastructure and configuring the model for production use. The deadline for this phase may be May end.

Phase-VI: If above experiment is successful, plan how to scale.

This phase involves planning for how to scale the FaceRec System if it is successful. This includes considering factors such as the number of users, the amount of data, and the computational requirements. The deadline for this phase is June.