



SMART INDIA HACKATHON 2022

Basic Details of the Team and Problem Statement

Organization : Cyber Crime Unit, Special Cell, Delhi Police, MHA

PS Code : RV1252

Problem Statement Title : "Develop a Mobile App through which a citizen can check whether an unattended child is a missing child from 'Track the missing child' database of WCD Ministry using Facial Recognition Software of Delhi Police"

Team Name : TEAM-FINDX

Team Leader Name : Chelsi Jain

Institute Code (AISHE) : C-61436

Institute Name : College of Technology and Engineering, Udaipur

Theme Name : Blockchain & Cybersecurity

Idea/Approach Details

#Idea

"Reverse Image Search Based Tracking App with Efficient Flex-Search Algorithm on WCD Lost-Child Data"

Flex-Search-Algorithm:

- ***Data-Point** = [MissingID, Profile_No]
Can regenerate all info about person.
- ***Checkpoint-Database**, Preserves Data Points with Respective Feature-Encoding from Last Search.
- ***Data-pipeline** that retrieves new Data points/encoding and update Database Checkpoint on New Search.
- ***Filter Top-10 Image** with Query-Image Based on **KNN-Clustering** with **Face-encodings (128 Features)**.
- ***Face Recognition** on Top-10 Images with Face-encoding.
- ***Extracts Info** of Best Match Data-Point.

#Use-Cases

- Web-App through which a citizen can check whether an unattended child is a missing child Just from child Image.

#Show-Stopper

Highly Efficient Computation time

Checkpoint Database omits repetitive encoding & Clustering reduces Search Span Saving Computation time & resources.

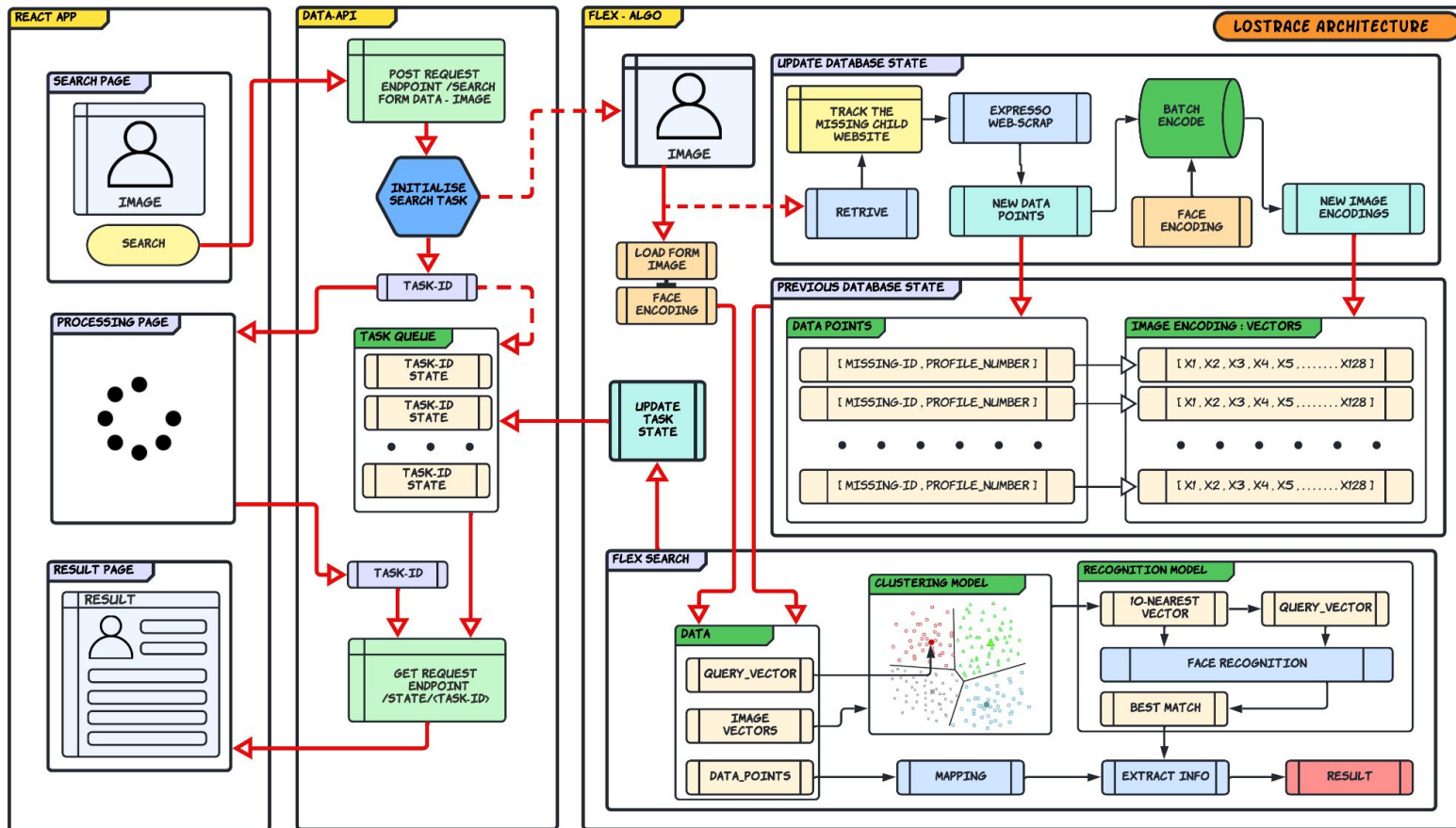
REST-API

Flexible API integration with Web, App, surveillance-camera, etc.

Minimalistic UI

Responsive React-App with Single Click Search.

Idea/Architecture



#Tech-Stack

Backend

- Python
- Flask
- Sklearn
- Tensorflow

Frontend

- React
- Javascript
- TailwindCSS
- PostCSS

Database

- MongoDB
- ### Deployment
- Heroku

Team Member Details

Team Leader Name: **Chelsi Jain**

Branch : Btech Stream : CSE Year : III

Team Member 1 Name: **Garvit Chouhan**

Branch : Btech Stream : CSE Year : II

Team Member 2 Name: **Subin S K**

Branch : Btech Stream : CSE Year : II

Team Member 3 Name: **Kaustub Dutt Pandey**

Branch : Btech Stream : CSE Year : II

Team Member 4 Name: **Prateek Garg**

Branch : Btech Stream : CSE Year : I

Team Member 5 Name: **Ashmita Pandey**

Branch : Btech Stream : ECE Year : I