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Forensic Face Sketch Recognition and Construction Using Voice Input

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Abstract: This project centers on forensic face sketch recognition and reconstruction through voice input, offering an innovative solution to aid law enforcement in suspect identification. Users—typically witnesses or investigators—provide verbal descriptions of a suspect's facial features using a microphone. These spoken inputs are processed using speech-to-text technology, converting the voice input into structured textual data. A generative AI model then creates facial composites based on this input. The system features a Django-based web interface with a drag-and-drop editor for refining facial sketches, enhancing usability. The AI model is hosted on Google Colab and accessed via a REST API, providing scalability. This solution automates and accelerates the sketch creation process, reduces human error, and improves reliability in suspect identification.

Keywords: Forensic AI, Face Sketch, Voice Recognition, Speech-to-Text, Django, Google Colab, Image Matching, Drag-and-Drop, Facial Reconstruction, Generative Models, Law Enforcement Tool



