Face Recognition Based Automatic Attendance Recording System using Deep Learning Libraries.

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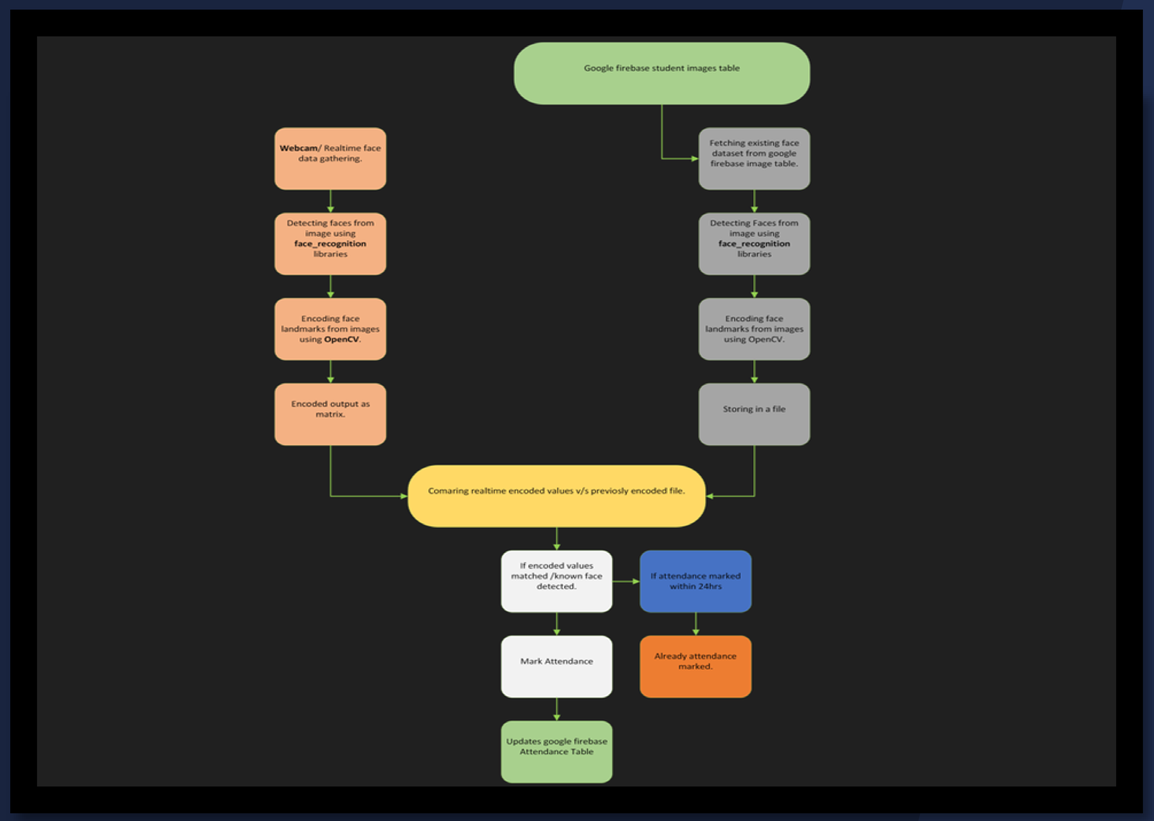
- **Face recognition systems :** streamline attendance recording, slashing errors and boosting efficiency
- **Challenges Faced by Existing Technologies** : Limited Accuracy, making them susceptible to errors like proxy attendance or time manipulation.
- **Face Recognition Based Automatic Attendance System using Deep Learning Libraries**: Real-time, accurate attendance. Ditch manual tracking, reduce errors.



Traditional Attendance recording systems and Techniques

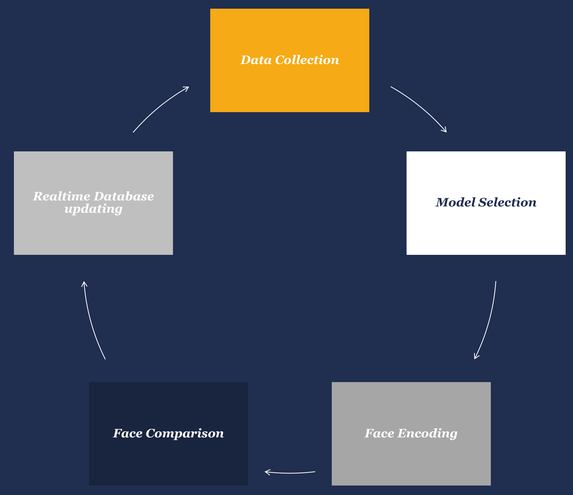
- Attendance recording has a long history, evolving from manual methods like paper registers to early digital systems.
- Earlier systems were susceptible to errors and manipulation, necessitating advancements in technology.
- Verbal Confirmation, Manual Roll Call, Paper-Based Registers, Time Clocks, Punch Cards, etc.

Advancements and Challenges

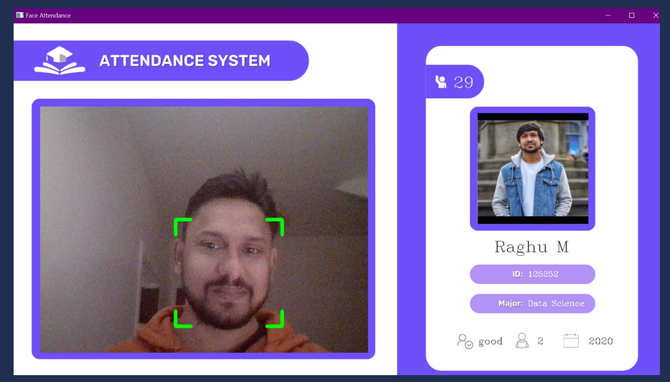
- Accuracy Advancements: Deep learning libraries enhance face recognition system accuracy.
- Privacy and Ethics Challenges: Ethical and privacy concerns pose challenges.
- Diverse Applications: Face recognition extends beyond security to various real-world uses.

Impact on Automatic Face Recognition System

- Enhanced Security: Automatic face recognition systems bolster security measures by providing a robust means of identity verification.
- Improved Efficiency: The automation of identity verification processes saves time and resources, increasing operational efficiency.
- Data-Driven Insights: These systems generate valuable data for analysis, aiding in decision-making and personalized user experiences.



Tool	Description
Programming Languages	Python
Frameworks	OpenCV, Dlib, CPP Compiler, Cmake, Cvzone
Database	Firebase
Version Control	Git
IDE	Pycharm
Communication	Teams



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References

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2. (Deep Learning Libraries, 2023; Wang, Li, & Chen, 2022).
3. (Firebase documentation 2024)