HP Face Recognition

Automatically detect, analyze, and recognize faces in real-time

Key features

Face detection and recognition

- One-to-one verification
- One-to-many identification
- Automatic face enrollment
- Scalability to large databases
- Fast real-time lookup response

Face analysis

- Demographic analysis
- Age bracket recognition
- Sex identification
- Ethnicity identification

Introduction

Facial recognition technology has evolved significantly over the last few years, moving the technology from science fiction to real-world reality. Wider proliferation of higher resolution cameras and lower cost computing power has also helped reduce the need to install new specific cameras to perform facial recognition. Also, there is a growing demand for using face recognition in helping analysts across multiple domains perform one-to-one person verification at border control stations, to flag individuals against watch lists, and to help marketers understand shoppers' behaviour.

Intelligent face analysis

HP's face recognition and analysis solution provides a crucial advantage to enable the bio-metric identification of people as well as a whole range of other security and commercial applications built around facial analysis. The solution identifies a face in real time from CCTV video feeds, and can perform one-to-one verification for bio-metric verification or one-to-many identification for the closest match from a database. The solution also allows automatic enrollment, enabling new use cases like detecting loitering or repeat visitors.

HP's face recognition solution also enables demographic analysis, based on face-like identifying age brackets, male or female, and more, with applications in customer analytics across a wide range of verticals.

Using HP Face Recognition

The HP Face Recognition system is in use across multiple law enforcement and border access control applications. We are also seeing a strong demand for facial analysis in a wide range of applications both in security domain as well as for marketing use cases. Some of the applications are described below:

- **Access Control:** Face recognition can be used for bio-metric verification of people entering an area such as border access points or enterprise buildings. The system acts as an additional bio-metric trigger to detect people falsifying identity when entering a country or a building.

- **National identity systems:** Verify the identity of an individual receiving government payments such as social security, Medicare, etc.

- **Individual tracking:** Identify faces from CCTV videos and perform one-to-many matches against a database to track flagged individuals across a large area.

- **Repeat visitors:** Automatically enroll new faces into the system database, allowing for alerts to be created if the same individual is seen multiple times in a given area over a defined period of time. Highly applicable in retail environments for security threat detection.

- **VIP identification:** Identify high spenders entering a hotel or casino premise to enable delivery of differentiated customer service, thus increasing customer loyalty.

- **Customer segmentation:** Leverage face-based demographics analysis to understand the type of customers visiting different stores, or at different times of the day. Analysis can also provide unique insights in retail or hospitality environments.

Specifications

The solution requires a minimum of 32 pixels for inter-pupil separation, and is robust against the normal variations experienced in the imagery like small pose deviations, minor partial face occlusions, beard and hairstyle changes, wearing glasses (except dark sunglasses), etc.

About HP Autonomy

HP Autonomy is a global leader in software that processes human information, or unstructured data, including social media, email, video, audio, text and web pages, etc. Autonomy's powerful management and analytic tools for structured information together with its ability to extract meaning in real time from all forms of information, regardless of format, is a powerful tool for companies seeking to get the most out of their data. Autonomy's product portfolio helps power companies through enterprise search analytics, business process management and OEM operations. Autonomy also offers information governance solutions in areas such as eDiscovery, content management and compliance, as well as marketing solutions that help companies grow revenue, such as web content management, online marketing optimization and rich media management.

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