

# Biometric Security- Face Recognition

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## Abstract

In the modern world, sensitive data or access to buildings can be protected by more than just a key or a password. Biometric data unique to every human can be used to allow or deny access. The purpose of this project is to be able to create a "key" for any person who wishes to use the program. An image of the client's face will be taken and used as the base biometric key. When the client wishes authorization, a new picture of their face will be taken and compared to the base image. The program should be able to recognize the client and authorize him or her, while denying access to those not recognized. A neural network will be used to accomplish this purpose.

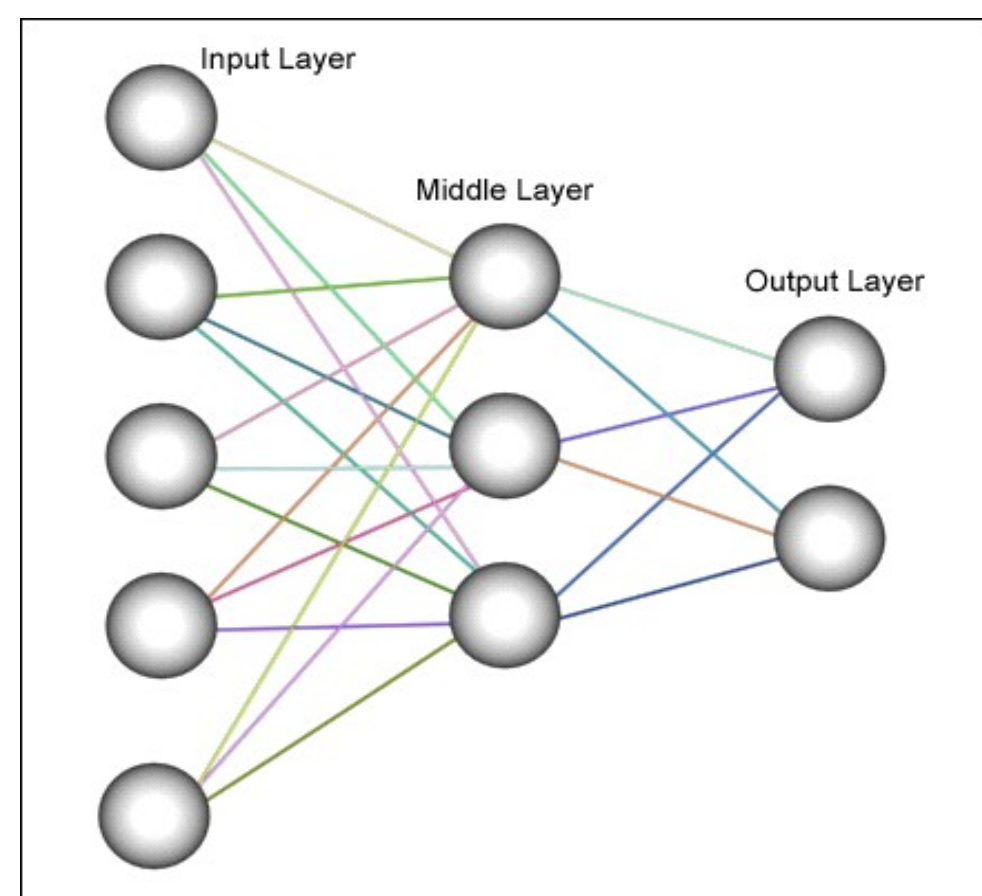


Fig 1: basic format of simple neural network

## Background and Introduction

Input data will be a training set of images of the user's face. These images will probably be collected with a webcam taking frames of a video. Alternatively, these images could be obtained with use of a standard digital camera, although many pictures would need to be taken in order to ensure a sufficiently large training set

I have created the framework for the neural network. This section will be significantly expanded once I complete some significant work on the project.



Fig 2: Sample training images

## Results and Conclusions

Coming soon