The purpose of this research is to create a comprehensive analysis of four face recognition algorithms. This is so that future software developers have a reference to work with when adding a face recognition into their software. The analysis will look into the speed and accuracy of each algorithms. An image dataset would be used to test the speed and accuracy, accompanied with a few real life images to help get a more generalized analysis on how the algorithms will perform in a real life scenario.

The programming language used for the face recognition algorithms is Python. The image dataset will be from the LFW (Labelled Faces in the Wild) dataset, and the AT&T dataset, both of which are available for download from the internet. The real life images will be images of people surrounding UIB (Universitas Internasional Batam). The face recognition algorithms that will be analyzed will be from the Dlib and OpenCV open source python libraries. From Dlib it will be DNN and HOG, from OpenCV it will be CNN and HAAR Cascades; so a total of four face recognition algorithms will be analyzed. In general there is no clear winner among the face recognition algorithms, each has their own advantages and disadvantages.

Keywords: python, face recognition, analysis, speed, accuracy