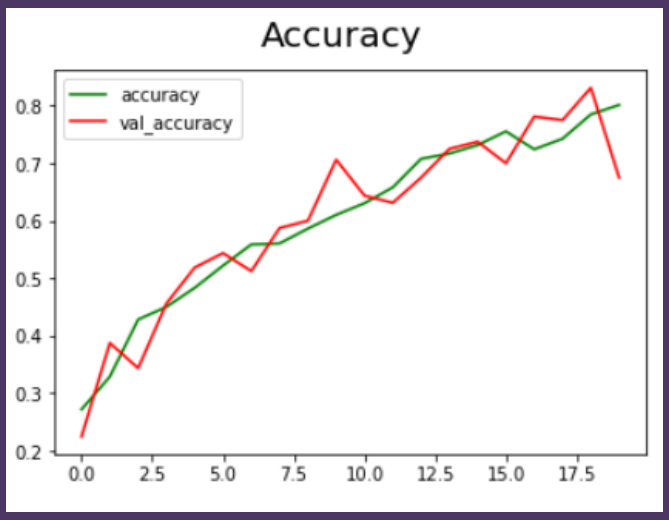
OCULAR DISEASE DETECTION

Background: Majority of visually impaired individuals are in 3rd world countries, where there is a mass shortage of doctors and medical staff. That being said, most visual impairments that lead to blindness are actually preventable through minor laser surgeries or even medications.

Objective: A desirable solution would be to have an AI model that can perform classification with an accurate diagnosis. This diagnosis will be made from fundus images, which are photos from inside the human eye. If successful, volunteers without medical expertise would be able to provide visual saving care for mass amounts of people. This model would then be compared to several other known models to give validity.



Model of Choice: Convolutional Neural Network

A CNN model is amongst the most popular for analyzing image-based data. It can be trained to predict things like what objects are present in a given image. It also serves as a base for many other types of models such as inception, ensemble, and residual nets. This an unsupervised learning model, it suits this project perfectly for classification and diagnosing different ocular diseases.