**Asian Facial Age Classification**

1. **Abstract**

Human age prediction has been one of the hardest tasks among image based machine learning problems. To determine one’s age through a single human facial image is a complex task, even for humans, let alone artificial intelligence. There are many subtle traits we might want to take into consideration when it comes to facial age, such as wrinkles, hairline, skin color. All of the traits above vary slightly from person to person, making the task even harder for classifiers. Despite the difficulty of the problem, there are many well defined public datasets on the facial age subject, for example UTKFace, MORPH, …etc. Within the past decade, profound researches have made great contribution to the improvement of age detection algorithms. Microsoft’s work in 2017 “How old am I” stands as a great indicator of how the interesting issue has generated much discussion in the researching field in recent years.

This work narrows down the original facial age prediction problem to a classification problem. I collected Asian face images with age ranging from 20 to 60 years old, and partitioned them into different age groups. The job of the AI classifier is to figure out which age group the testing image belongs. The task is simplified from overall human facial age prediction to Asian facial age prediction, and the regression process of age detection is also simplified to a classification problem of age groups. Both of the above simplification is due to the limited dataset collected manually by myself.

1. **Dataset**
2. **Algorithm**
3. **Experiment**
4. **Discussion**