

Title Liveness Tests for Facial Recognition

Project Type Computer Vision, Image Processing and Security

Description - determining real faces from photos of faces (i.e. people showing a picture to a camera)

Preliminary Preparation

- Raw processing using libraw and dcraw
- An understanding of ReactJS and Redux
- How can I store raw images and edit them appropriately?

Minimum Objectives

- Load DNG RAW files by upload
- Exposure adjustment
- Noise reduction methods (Gaussian, mean, median)
- Web Interface interacting with an image processing server
- Non-destructive image adjustment (i.e. no reduction in quality over time)

Intermediate Objectives

- Modern, user friendly User Experience
- Spot healing implemented
- Haze removal
- cropping, rotating and exporting to other formats

Advanced Objectives

- Addressing potential scalability issues
- Implement basic previews using built in JPEG to improve QoS

References

- Pics.io blog (<http://blog.pics.io>)
- JavaScript Image Processing Library (<http://github.com/oliver-moran/jimp>)