

Title Web-based RAW Photo Editor

Project Type Graphics and Visualisation

Description RAW Photo Editing is typically done on fairly high level hardware, and can require a large amount of configuration (for GPUs for example). The aim of this project is to make RAW photo editing more accessible by bringing RAW editing online, meaning lower end hardware can be used for editing, and less configuration is needed.

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>)