Cloud-based RAW image editing

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Abstract —

Context/Background

Aims The main aim of this project is to test the feasibility of a Cloud-based RAW image editor.

Method A render server backend will first be implemented as an API, taking in an input as a JSON object, and then processing the image, and then a JavaScript client shall be created to interface with this API.

Proposed Solution A web application that uses dcraw coupled with custom Java code to read RAW images, and allow adjustment of various parameters, with the output being sent back to the user.

Keywords — RAW image editing, dcraw, cloud image editing

I INTRODUCTION

Many photographers use a file format (or rather, a family of very similar file formats) called RAW, which rather than compressing the image and conducting some image manipulation on the camera, store the RAW camera sensor data outputted by the camera sensor, for later processing and editing by a computer. These files can be much larger than the compressed image, but provide a far greater degree of control over the captured image, when compared with a compressed JPEG, along with an increase in quality. A RAW file essentially acts as a digital negative, as the image can be edited constantly without losing any quality between edits. (Verhoeven 2010)

A Project Aim

B Deliverables

II DESIGN

This section presents the proposed solutions of the problems in detail. The design details should all be placed in this section. You may create a number of subsections, each focusing on one issue.

This section should be up to 8 pages in length. The rest of this section shows the formats of subsections as well as some general formatting information. You should also consult the Word template.

A Requirements

B Proposed Extensions

C Architecture

D User Interface

E Evaluation

III REFERENCES

References

Verhoeven, G. J. J. (2010), 'It's all about the format unleashing the power of raw aerial photography', *International Journal of Remote Sensing* **31**(8), 2009–2042.
URL: *https://doi.org/10.1080/01431160902929271*