Computer Science Master Thesis Presentation

Aneka- Wavelet Image Hashing Algorithm

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Examination Committee:
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Abstract:

Digital imaging has experienced tremendous growth in recent decades, and digital images have been used in a growing number of applications. With such increasing popularity and the availability of low-cost image editing software, the integrity of digital image content can no longer be taken for granted. This thesis introduces a new methodology for the forensic analysis of digital images. This thesis proposes a novel hashing method using scale-invariant feature transform (SIFT) features points and Discrete Wavelet Transform (DWT) approximation coefficients for image authentication. Experimental results show that the proposed method is robust to various content-preserving operations such as compression, scaling, filtering, additive noise, brightness, and contrast adjustment. In addition, the performance of the proposed method is compared to existing methods. The comparison results show that the proposed method performs better than the existing methods. This thesis also mentions about the Amazon Web Services that are being used in detail.

2:00 pm, Monday, November 19$^{\text{th}}$, 2018
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All students and faculty are invited

An Academic Affairs Event