

The Hong Kong Polytechnic University

Department of Computing

**External and Internal Nonlocal
Self-similarity based Models for Image
Denoising**

Jun Xu

**A thesis
submitted in partial fulfilment of the requirements
for the degree of**

Doctor of Philosophy

July 10, 2017

CERTIFICATE OF ORIGINALITY

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Jun Xu

(Name of student)

Abstract

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Introduction

“*Mens cujusque is est Quisque*” – *"Mind Makes the Man"*

— Samuel Pepys

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1.2 The Image Noise

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1.3 Proposed

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1.4 Thesis Structure

Chapter 2

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Chapter 6

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Chapter 7

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— **Samuel Pepys**

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2.1 System

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2.2 Feature Extraction

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” *Innovation distinguishes between a leader and a follower.*

— **Steve Jobs**
(CEO Apple Inc.)

3.1 Introduction



Fig. 3.1: Figure example: (a) example part one, (c) example part two; (c) example part three

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Fig. 3.2: Another Figure example: (a) example part one, (c) example part two; (c) example part three

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3.2 System Design

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3.3 Demo System

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3.4 Calibration

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3.5 Conclusion

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Feature Extraction

“Users do not care about what is inside the box, as long as the box does what they need done.

— Jef Raskin

about Human Computer Interfaces

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4.1 Introduction

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4.2 Related Work

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4.3 Method

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4.4 Experimental Results

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4.5 Summary

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Conclusions

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7.1 Section 1

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7.2 Section 2

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7.3 Future Work

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