

SEAM CARVING FOR CONTENT-AWARE IMAGE RESIZING



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OVERVIEW

- Introduction
- Methodology –energy map, vertical and horizontal seam removal, object removal, enlarging, amplification.
- Results of all the applied algorithms
- Conclusion and Contribution

INTRODUCTION

- Objective of this project is to understand the paper by Shamir provided to us in the Image processing course, implement the project and if possible propose some changes.
- Basic idea of this seam carving is to have the content aware image resizing technique.
- Cropping is only limited to change or remove pixels from the periphery of the image. Better and effective resizing can only be achieved by considering the content of the image and not boundary limits.



**ENERGY
MAP ,
VERTICAL
AND
HORIZON
TAL SEAM
REMOVAL**

METHODOLOGY

ENERGY MAPS



ENERGY MAPS



METHODOLOGY

OBJECT REMOVAL

OBJECT REMOVAL EXAMPLE



OBJECT REMOVAL EXAMPLE



OBJECT REMOVAL EXAMPLE



OBJECT REMOVAL EXAMPLE



OBJECT REMOVAL EXAMPLE



METHODOLOGY

AMPLIFICATION

AMPLIFICATION EXAMPLE



AMPLIFICATION EXAMPLE



METHODOLOGY

ENLARGING

ENLARGING EXAMPLE



METHODOLOGY

APPLICATION

APPLICATION IN ARTS

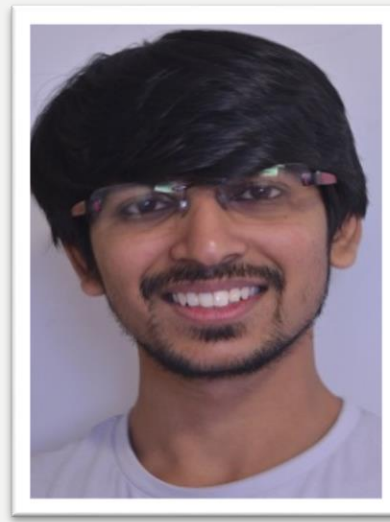


Roof top of Versailles castle



OUTPUTS

FAILURE OF ALGORITHM



FAILURE OF ALGORITHM



FAILURE OF ALGORITHM



View from top of Eiffel Tower



CONTRIBUTION

1

Functional
implementation
of the paper.

2

Fast working
by
optimization.

3

Improved
readability

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