



**gTIP**  
- Bringing 2D Images into Life



## HKUST Engineering Summer Camp for Honour Students

Building a better world with Engineering

July 22-24, 2005

The Department of Computer Science, HKUST

## Outline



- Introduction
- Creating animations using gTIP
- Techniques used in creating input images for gTIP
- Task to be accomplished in this workshop

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## Introduction



- Virtual Touring – Navigating inside a scene by:
  1. Generating movies taken from the real scene.
  2. Constructing a model of the scene with
    - Digitized 3D models and render the scene: 3D games, VR (Virtual Reality)
    - A reduced model of the scene.
- Problems:
  1. Not worked if the scene is a novel one.
  2. Tedious and expensive.

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## Alternative solutions ?



- Image based Rendering approach
  - Using single or multiple images of a scene as input.
  - Extract 3D information (with algorithms and manual input) from the input images and create the scene's model.
  - Produce the animation by navigating inside the model.

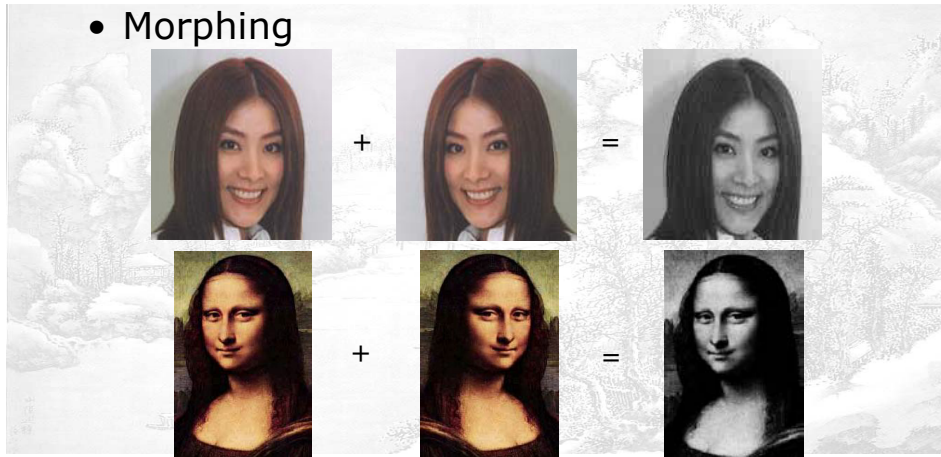
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## Examples



- Morphing



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## gL TIP



- Image based rendering technique introduced in this workshop – gLTIP
- Input: Image / Photo / Painting
- Output: Virtual touring of the scene



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## Things you should have learnt after the workshop



- Use gLTIP to produce 3D animations from an image.
- Basic techniques for using image processing software.
- Use your creativity and imagination to make your animation interesting and applicable in real life.
- Cooperation with your teammates.
- Presentation skills.

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