Normal Map Interpolation GUI for 2D Images

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ABSTRACT

A concise summary of the report, including the purpose, methods, results, and conclusions (about 200-300 words).

KEYWORDS

CS 6682, Lab Cat

1 INTRODUCTION

Background: Explain the problem your project addresses.
Motivation: Why is this problem significant? Discuss the challenges artists face when manually creating normal maps.
Objective: Clearly state the goal of your project.
Overview: Briefly describe the structure of the report.

2 IMPLEMENTATION

Technical Details: Discuss the technologies, libraries, and frameworks used.
Code Structure: Provide an outline of the main modules and functions in your code.
Algorithms: Explain any key algorithms or processes in detail, particularly those for normal interpolation and rendering.

3 METHODS

System Architecture: Describe the overall design of your app, including major components and their interactions.
Segmentation and Masking: Explain how users can segment images and create masks within your app.
Normal Map Creation: Detail the process of adding normals by clicking and dragging arrows.
Light Source Definition: Describe how users can define light sources.
Rendering Engine: Explain the rendering process based on the defined lights and normals.
User Interface: Provide an overview of the user interface design and its usability features.

4 RESULTS

Evaluation Metrics: Define the metrics used to evaluate your app (e.g., usability, performance).
User Testing: Present the results of any user testing, including feedback from artists.
Performance Analysis: Provide data on the app's performance, such as rendering times and accuracy of the normal maps.

5 DISCUSSION

Interpretation of Results: Discuss what your results mean in the context of your objectives.
Strengths and Weaknesses: Identify the strengths and potential limitations of your app.
Comparison with Related Work: Compare your results with those of existing tools and studies mentioned in the related work section.

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A RELATED WORK

A.1 What?

Literature Review: Summarize existing research and tools related to normal map creation and real-time rendering for 2D images.
Comparison: Highlight how your project differs from or improves upon these existing solutions.