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# Classifying Restaurant Type of Geographical Regions

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**Abstract:** Three dimensional images were obtained using a single high numerical aperture hologram recorded in a high resolution photoresist with a table top  $\alpha = 46.9$  nm laser. Gabor holograms numerically reconstructed over a range of image planes by sweeping the propagation distance allow numerical optical sectioning that results in a robust three dimension image of a test object with a resolution in depth of approximately and a lateral resolution of 164 nm.

**Index Terms:** Holography, image analysis.

## 1. Problem Description

## 2. Related Work

## 3. Solution

## 4. Experiments

### 4.1. Data

### 4.2. Experimental Setup

### 4.3. Experimental Results

## 5. Conclusion

## Contributions of Teamates

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