

HW3: Problem 1

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1 Part 1

The relative error for the core tensor is: 0.05343890097919052.

2 Part 2

Below is the relative error for each threshold:

```
percentiles,relative_errors  
0.1,0.11737302332286101  
0.2,0.09141646112177233  
0.3,0.07677916921832018  
0.4,0.06730272837662707  
0.5,0.061074384679902415
```

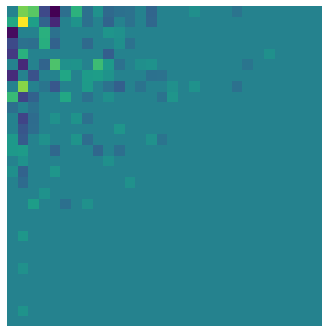


Figure 1: Percentile = 0.1; Image 5

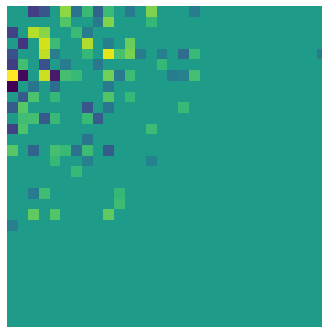


Figure 2: Percentile = 0.1; Image 10

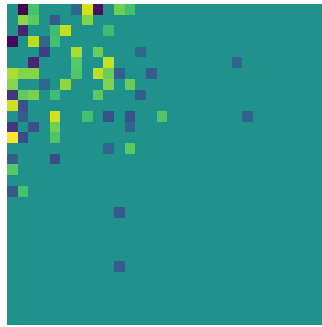


Figure 3: Percentile = 0.1; Image 15

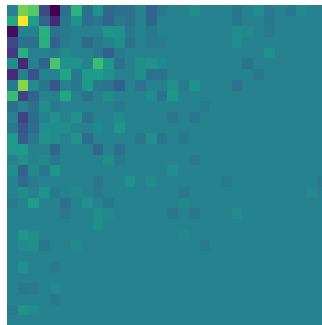


Figure 4: Percentile = 0.2; Image 5

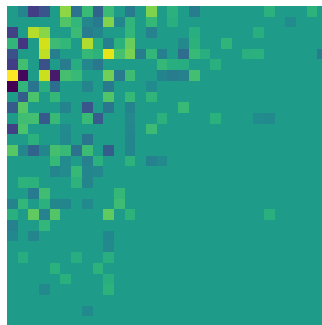


Figure 5: Percentile = 0.2; Image 10

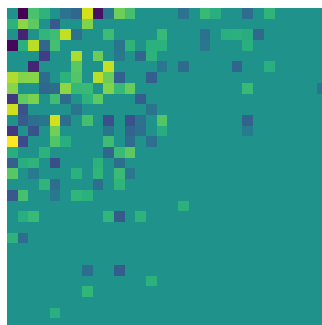


Figure 6: Percentile = 0.2; Image 15

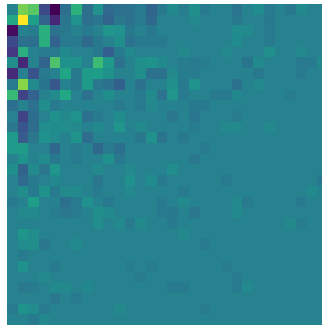


Figure 7: Percentile = 0.3; Image 5

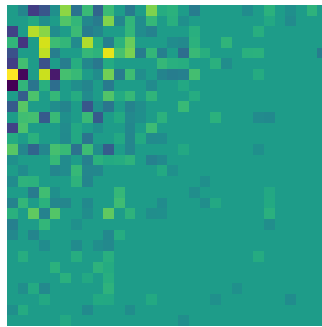


Figure 8: Percentile = 0.3; Image 10

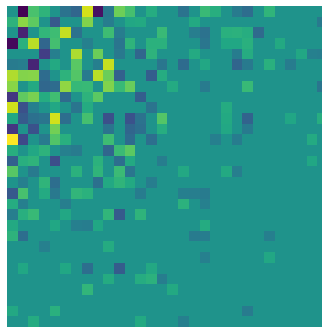


Figure 9: Percentile = 0.3; Image 15

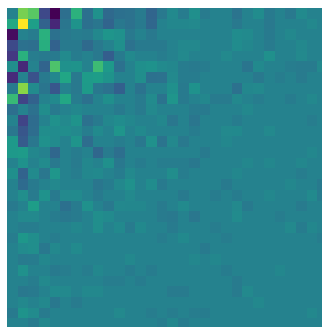


Figure 10: Percentile = 0.4; Image 5

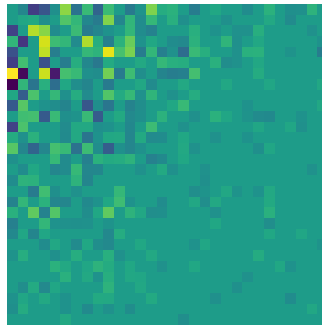


Figure 11: Percentile = 0.4; Image 10

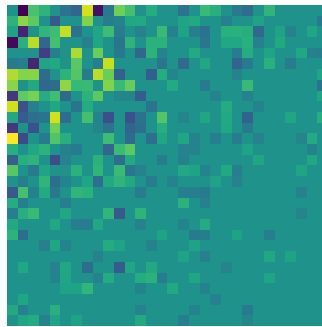


Figure 12: Percentile = 0.4; Image 15

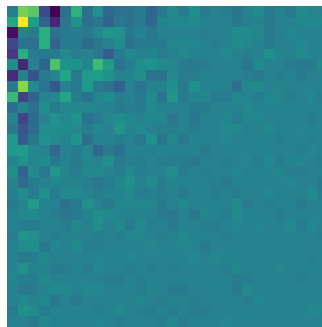


Figure 13: Percentile = 0.5; Image 5

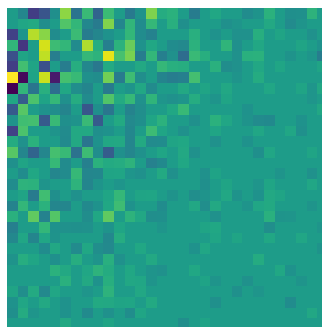


Figure 14: Percentile = 0.5; Image 10

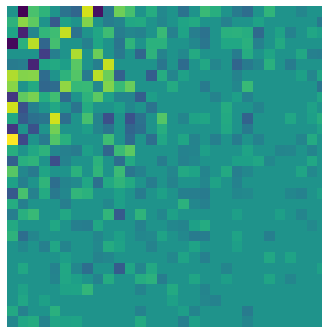


Figure 15: Percentile = 0.5; Image 15