

# Spring 2018 CS755 Project Report Acoustic Sensing

Mingrui Han  
George Mason University  
4400 University Drive  
Fairfax, VA  
mhan8@gmu.com

Joshua Lilly  
George Mason University  
4400 University Drive  
Fairfax, VA  
jlilly3@gmu.com

## ABSTRACT

Abstract should be one paragraph summary of the introduction. Be sure to highlight your achievements.

## Keywords

ACM proceedings, L<sup>A</sup>T<sub>E</sub>X, text tagging

## 1. INTRODUCTION

This section should summarize the entire paper.

## 2. RELATED WORK

State of the art techniques in literature, and how they are related to the work you’ve done. This should not exceed half page

## 3. APPLICATIONS

Discuss how your technique can be used in real-life applications. Be sure to put your thoughts beyond what is written in the original paper. This should not exceed half page

## 4. ROLES AND COLLABORATION

Only for teams. Who did what and how did you collaborate. Be VERY specific.

## 5. PROJECT OVERVIEW

This section should provide an overview of the project, especially compared to the original work. Please include below subsections. You are free to add or reorder sections, but should not remove any.

### 5.1 Original Work

Briefly summarize the original work. You may use your critique but please adjust to fit into the project context. Should not exceed half a page

### 5.2 Project Summary

Summarize what you have achieved in your project, especially compared to the original work. What parts were and were not implemented, performance gap from the original work, etc.

## 6. DESIGN AND IMPLEMENTATION

This should be the main part of the report. It should include below subsections. Feel free to add (do not remove) subsections and reorder them.

### 6.1 setup

Scenarios and setup of your implementation, including location, hardware, software, and so on. If possible, include pictures and figures to be illustrative. Compare your setup to the original paper, and explain why you did so

### 6.2 Technical Details

All the technical details related to your project should be placed here including, but not limited to, techniques and methodologies involved, theories behind them, how they were implemented, what was the difference from the original paper, what was not mentioned in the paper and how you overcame it, and so on. Be specific.

### 6.3 Lessons learned

What are the knowledge obtained from this project? Clearly state what you have learned from this project, beyond what is on the original paper. This includes practical issues you’ve faced, how you were able to troubleshoot them. Even if you could not fix it, describe what you have tried, why you were unable to solve it, and your hypothesis on what would be the cause. If you were not able to implement the entire system in the original paper, explain why.

## 7. EVALUATION

Performance evaluation and potential improvement. Should include below subsections. Feel free to add (do not remove) subsections and reorder them.

### 7.1 Performance and Analysis

Be illustrative with graphs and figures. However, don’t just simply enlist the results, but explain them and provide analysis/insights obtained from the implementation and experiments. For example, why does your project perform better/worse than what is reported in the original paper?

Why does it perform differently under various scenarios? Any un- expected results are found, and why

## **7.2 Potential Improvements**

From your experiment experience, what do you think can be done to improve the performance. Please justify

## **8. REFERENCES**