RESNET CLASSIFIER FOR DCASE 2021 CHALLENGE TECHNICAL REPORT

Technical Report

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ABSTRACT

In this challenge, resnet is used to construct out classifier to identify machine id and all other machines. The possibility of the classifier is used to diagnosis how far the working condition of a machine from a healthy one.

***Index Terms*—** Resnet, Data construction

1. INTRODUCTION

Machine abnormal detection has been quite a challenge for decades. Without enough abnormal data, it is difficult to establish a model that can robustly identify their running status. However, with the development of deep learning and collection of huge number of healthy and normal data, people can start to diagnosis their condition step by step.

2. FORMATTING YOUR PAPER

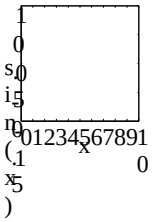
3. NUMBER OF PAGES

4. PAGE TITLE SECTION

5. TYPE-STYLE AND FONTS

6. MAJOR HEADINGS

6.1. Subheadings



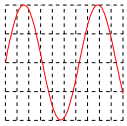


Figure 1: Example of placing a figure with experimental results.

6.1.1. Subheadings

7. PAGE NUMBERING, HEADER, AND FOOTER

8. ILLUSTRATIONS, GRAPHS, AND PHOTOGRAPHS

9. EQUATIONS

$$\nabla^2 p(x,y,z,t) - \frac{1}{c^2}\frac{\partial^2 p(x,y,z,t)}{\partial t^2} = 0, \qquad (1)$$

where *p(x,y,z,t)* is an infinitesimal variation of acoustic pressure from its equilibrium value at position (*x*, *y*, *z*) and time *t*, and where *c* denotes the speed of sound.

[†] Thanks to ABC agency for funding.

10. FOOTNOTES

11. REFERENCES

12. ACKNOWLEDGMENT

13. REFERENCES

[1] http://dcase.community/workshop2021/.
[2] http://www.ieee.org/web/publications/rights/copyright-main.html
[3] E. G. Williams, *Fourier Acoustics: Sound Radiation and Nearfield Acoustic Holography*, London, UK: Academic Press, 1999.
[4] C. D. Jones, A. B. Smith, and E. F. Roberts, “A sample paper in conference proceedings,” in *Proc. IEEE ICASSP*, 2003, vol. II, pp. 803-806.
[5] A. B. Smith, C. D. Jones, and E. F. Roberts, “A sample paper in journals,” *IEEE Trans. Signal Process.*, vol. 62, pp. 291-294, Jan. 2000.