CS4246 Project 1
Depression Prediction

Team 01

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Abstract

Depression is a worrying issue in modern times. If left unregulated, it can be dentrimental both health and life.

In this report, we illustrate the use of Gaussian Processes to calculate and model stress levels in society and with the data obtained, is used to estimate depression severity.

Introduction

For our experiment, we will use the Gaussian Rrocess (GP) model to measure and compute depression severity via audio recordings. We will also be discussing about the desirable properties of the GP model, detailed applications of the model towards depression severity, advantages of using the model and finally future improvement as well as how our analysis can contribute to the public.

Gaussian Process Regression Model

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Technical Approach

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Evaluation

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Conclusion

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Main Roles of Each Member

- **Antoine Charles Vincent Garcia**: Scripting the program, setting up machine learning libraries and running tests.
- **Chan Jun Wei**: Project technicalities such as problem formulation and modelling, mathematics and experiment planning.
- **Chen Tze Cheng**: Project technicalities such as problem formulation and modelling, mathematics and experiment planning.
- **Eric Ewe Yow Choong**: Documentation especially writing of the motivation, recording research findings and keeping track of requirements.
- **Han Liang Wee, Eric**: Scripting the program, setting up machine learning libraries and running tests.
- **Ho Wei Li**: Documentation especially writing up the motivation, recording research findings and keeping track of requirements.

References

1 Michel Valstar, Jonathan Gratch, Bjorn Schuller, Fabian Ringeval, Denis Lalanne, Mercedes Torres Torres, Stefan Scherer, Giota Stratou, Roddy Cowie, Maja Pantic, "AVEC 2016 - Depression, Mood, and Emotion Recognition Workshop and Challenge", MAY. 27, 2016