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Academic Goal and Research Interest

Master degree in the field of multimedia processing and communication (started from 2007, expected in Jul. 2009), Advisor: Homer H. Chen, PhD.

My research interests are multimedia information retrieval and indexing, music signal processing, and machine learning.

Education

B.S. Electrical Engineering, National Taiwan University, 2007.
overall grade average: 83.27, overall-GPA: 3.62/4.00.

Publications

JOURNAL PAPERS

1. Y.-H. Yang, **Y.-C. Lin**, Y.-F. Su, and H.-H. Chen, "A regression approach to music emotion recognition," *IEEE Trans. Audio, Speech and Language Processing (TASLP)*, vol. 16, no. 2, pp. 448-457, Feb. 2008.

CONFERENCE PAPERS

1. **Y.-C. Lin**, Y.-H. Yang, and H.-H. Chen, "Exploiting genre for music emotion classification," in *Proc. IEEE Int. Conf. Multimedia and Expo. 2009 (ICME'09)*, Cancun, Mexico.
2. Y.-H. Yang, **Y.-C. Lin**, and H.-H. Chen, "Clustering for music search results," in *Proc. IEEE Int. Conf. Multimedia and Expo. 2009 (ICME'09)*, Cancun, Mexico.
3. H.-T. Cheng, Y.-H. Yang, **Y.-C. Lin**, and H.-H. Chen, "Multimodal structure segmentation and analysis of music using audio and textual information," in *Proc. IEEE Int. Symp. Circuits and Systems 2009 (ISCAS'09)*, Taipei, Taiwan.
4. Y.-H. Yang, **Y.-C. Lin**, H.-T. Cheng, and H.-H. Chen, "Mr.Emo: Music retrieval in the emotion plane," in *Proc. ACM Multimedia 2008 (MM'08)* (demonstration), pp. 1003-1004.
5. Y.-H. Yang, **Y.-C. Lin**, H.-T. Cheng, I.-B. Liao, Yeh-Chin Ho, and H.-H. Chen, "Toward multi-modal music emotion classification," in *Proc. Pacific-Rim Conf. Multimedia 2008 (PCM'08)*, pp. 70-79.
6. H.-T. Cheng, Y.-H. Yang, **Y.-C. Lin**, and H.-H. Chen, "Automatic chord recognition for music classification and retrieval," in *Proc. IEEE Int. Conf. Multimedia and Expo. 2008 (ICME'08)*, Hannover, Germany, pp. 1505-1508.
7. Y.-H. Yang, Y.-F. Su, **Y.-C. Lin**, and H.-H. Chen, "Music emotion recognition: The role of individuality," in *Proc. ACM SIGMM Int. Workshop on Human-centered Multimedia 2007*, in conjunction with *ACM Multimedia (ACM MM/HCM'07)*, Augsburg, Germany, pp. 13-21.
8. Y.-H. Yang, **Y.-C. Lin**, Y.-F. Su, and H.-H. Chen, "Music emotion classification: A regression approach," in *Proc. IEEE Int. Conf. Multimedia and Expo. 2007 (ICME'07)*, Beijing, China, pp. 208-211.

Projects

MUSIC EMOTION RECOGNITION (MER)

Music plays an important role in humans history, even more so in the digital age. As the music databases grow, more efficient organization and search methods are needed. Music classification by perceived emotion is a plausible approach, for it is content-centric and functionally powerful. However, music emotion recognition is challenging because emotion is ambiguous and subjective. Typical music emotion classification approaches categorize emotions and apply pattern recognition methods to train a classifier. However, categorized emotions are too ambiguous for efficient music retrieval. We have modeled emotions as continuous variables composed of arousal and valence values (AV values), and formulated MEC as a regression problem. Promising results have been obtained. Currently we are developing a multi-modal music emotion recognition system that utilizes features extracted from the musical signal and the lyrics.

Honors & Awards

Third place in the 3rd NISSAN Design Award, 2007.

Academic Experience

NATIONAL TAIWAN UNIVERSITY

Research Assistant, Homer H. Chen, Summer 2007-present.

INSITUTE OF INFORMATION SCEIENCE, ACADEMIA SINICA

Research Assistant, Hsin-Min Wang, Jul. 2007–Sep. 2007.

Miscellaneous

PROGRAMMING LANGUAGE

C, C++, OpenCV, PHP, Perl, Python, Cocoa, Matlab, \LaTeX .

OPERATION SYSTEM

Mac, Linux, Windows

References

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