

Xu Yao Education: Master

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Education Background

•	2014.9.1-Now	Southeast University	Signal and Information Processing
•	2009.9-2013.7	Southeast University	Applied Physics

Professional Skills

- 1. Familiar with the Java Programming Language and MATLAB simulation.
- 2. Good understanding of basic data structure and algorithm design.
- 3. Familiar with classic pattern recognition and machine learning algorithm.
- 4. Having a basic idea of C, Python programming, SQL language and Linux environment.
- 5. CET-6 Good verbal English skill & Professional written English skill.

Academic Research

♦ 2015.12-Now Research of speech separation based on spatial information and DNN

Project Description: Motivated by human perceptual principles, in the proposed system, the input speech signal is decomposed into the time-frequency domain with the gammatone filterbanks. We train a DNN classifier for each frequency channel with combination of the normalized cross-correlation function and ILD to accomplish speech separation.

Personal Work: Read related paper, understand the principles of each module, and design whole separation system. From building binary mask to reconstruction of speech, complete the coding work and gain the result.

♦ 2015.09-2016.1 Research of speech location based on iteration DNN and binaural features

Project Description: Due to deep neural networks algorithm's compelling performance in speech and signal processing. The proposed system employed DNN classifier and ITD and IID to location each speech frame. Finally, we use traditional separation algorithm to get target speech.

Personal Work: Read source code of DNN, understand DBN' pre-train period and subsequent fine-tuning period. Construct system frame and complete coding.

Project Experience

♦ 2015.04-2015.07 Alibaba Recommendation System Algorithm Competition

Project Description: Based on real user-item behavior data provided by Tianmao platform, combine related algorithm and business knowledge to design recommendation system to predict behaviors of consumers.

Main Work: In first season, mainly by sql server platform, extract related feature and employed LR, GBDT algorithm to predict results. In second season, the amount of data is around 5 billion, we complete the prediction work on ODPS platform by Ali Cloud which integrated map&reduce, hive environment and ML toolbox.

Final Place: 66/7186.

♦ 2014.09-2014.11 Film Score prediction in HADOOP environment

Project Description: on Hadoop platform, in distributed environment, complete demo program word count and built film score prediction.

Main Work: Use JAVA language to code and run successfully classic slope-one algorithm.

Honors & Awards

Outstanding student of Physics		Individual Course Prize	
Southeast university structure competition	the first prize		
Student Activities & Hobbies			

Student Activities & Hobbies

College entrance examination volunteers teacher assistant of DSP & MATLAB work-study programs in physics Responsible, optimistic, cooperative.