

# Frank Z. Xing

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Computational Intelligence Laboratory  
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## ACADEMIC QUALIFICATIONS

**Nanyang Technological University,** 2016 — Present

- PhD Student in School of Computer Science and Engineering, Research Assistant
- Research Topic: Sentiment Analysis, Stochastic Processes, Financial Forecasting
- Advisor: Prof. Erik Cambria

**Peking University,** 2011 — 2015

- B.Sc. in Information Systems and B.A. in Economics
- Research Topic: Natural Language Processing, Machine Learning, Computer Vision
- Advisor: Prof. Yang Xu, Prof. Win-Bin Huang
- GPA: 3.5/4.0

**City University of Hong Kong,** 2013

- Exchange student in Department of Information Systems
- Course: Business Intelligence and Analytics, Database System, etc.
- GPA: 3.9/4.3

## RESEARCH PROJECTS

**Natural Language Based Forecasting (NLBF) for Business Analytics,** 2015 — Present

- Conducting Literature Review
- Toolkit programming

**Image Segmentation Survey & Implementation,** 2014 — 2015

- I surveyed over 100 papers in the field of image segmentation, with the help of some open source codes, I implemented fundamental image processing algorithms, such as superpixel generation (SLIC, watershed), feature extraction (SIFT, GIST, STF) and format conversion. These components were then leveraged to learn a CRF based model for segmentation.
- I wrote the system in MATLAB, and had about 6,000 lines of codes.

**Irony Detection in Chinese Internet Texts,** 2013 — 2014

- I worked on a specific perspective of sentiment analysis in Chinese, a.k.a. irony detection with the support of Undergraduate Research & Training Program. I came up with the computational formalization for key ironic patterns, and conducted empirical research with data crawled from some main Chinese news forums. A logistic regression model is used for detection.
- I wrote the program in Java, ~1,500 lines of codes.

## PUBLICATIONS

**F. Z. Xing**, E. Cambria, W.-B. Huang and Y. Xu, Weakly supervised semantic segmentation with superpixel embedding, *IEEE International Conference on Image Processing (ICIP)*, Phoenix, 2016, pp. 1269-1273.

## **ACTIVITIES**

Student Member, <i>Computational Intelligence Society</i> , IEEE Singapore Section	2016
Invited Talk, <i>Stock Market Prediction: What Information to Retrieve and How</i> , NTU	2016
Poster, <i>Markov Model Based Suggestions to Collection Development</i> , PKU	2014

## **TEACHING**

Tutorial Instructor, <i>CZ2002 Object Oriented Design &amp; Programming</i> ,	Spring 2016
Teaching Assistant, <i>CZ4034 Introduction to Information Retrieval</i> ,	Spring 2016

## **SERVICE**

Reviewer: IEEE Computational Intelligence Magazine, Knowledge-Based Systems, Information Processing & Management; IJCNN 2016  
PC Member: SENTIRE ICDM 2016,

## **HONORS&AWARDS**

Research Scholarship Award, <i>Temasek Laboratories@NTU</i> ,	2016
Outstanding Graduation Thesis, <i>Peking University</i> ,	2015
The May Fourth Scholarship and Merit Student, <i>Peking University</i> ,	2013
Wang Jin-Yun Scholarship, <i>Wuhan No2 High School</i> ,	2011

## **SKILLS**

### **Computer:**

- Proficient with MATLAB, R, SAS, HTML, L<sup>A</sup>T<sub>E</sub>X
- Experienced with Python, SQL

### **Language:**

- Fluent in Chinese (*Mandarin, Cantonese and Hokkien*) and English
- Learning Russian (*чумь-чумь*) and Dutch (*niet veel*)

**Misc.:** I play clarinet and ukulele, also a modest waltz dancer

## **REFERENCE**

Prof. Yang Xu,  
Department of Information Management, Peking University, Email: yang.xu@pku.edu.cn

Prof. Erik Cambria,  
School of Computer Engineering, Nanyang Tech. University, Email: cambria@ntu.edu.sg