

# Yuan Yuan

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## Education

2012–2016

**B.Eng. in Computer Science**, Tsinghua University, Beijing, P.R. China.

GPA: 93/100 (3.9/4.0) Rank: 1/116

**Selected courses:** Data Structures and Algorithms, Fundamentals of Programming, Computer Organization, Operating System, Software Engineering, Machine Learning, Information Retrieval

2013–2016

**B.Ec. in Economics**, Tsinghua University, Beijing, P.R. China.

**Selected courses:** Intermediate Microeconomics (Game Theory included), Econometrics, Intermediate Macroeconomics, Principles of Finance

## Research Interests

My research interest focuses primarily on **data mining**, especially its **combination** with economics, linguistics and social sciences. Meanwhile, I am interested in **machine learning**, **natural language processing** and **information retrieval**.

## Research Experience

Jul–Nov 2015

**Big Data and Social Computing Lab**, University of Illinois at Chicago, IL, USA.

Advisor: Prof. Philip S. Yu

- Research Assistant: Opinion Spam Detection on Location-Based Social Network
  - Showed signals aggregated from multiple review websites can provide effective and human-interpretable evidences than those from any single website
  - Exploited multiple review websites and proposing a bi-level pipeline, macroscopic to microscopic, for opinion spam detection
  - Designed time series patterns to detect suspicious time period and conducted experiments to demonstrate such suspicion
  - Submitted to International World Wide Web Conference (WWW'16) as first author

Nov 2014–present

**Knowledge Engineering Group**, Tsinghua University, Beijing, China.

Advisor: Prof. Jie Tang

- Research Assistant: Quality Analysis and Predication Official Accounts on Wechat
  - Predict popularity (number of followers) and impact (quality) of a new official account
  - Built a classifier with features of articles, account behaviors and social networks
- Research Assistant: Expert finding on Arnet Miner: An Academic Search Engine
  - Utilized word embedding to produce similar queries to extend the initial queries to increase recall
  - Built heterogeneous networks of queries, papers, authors and conferences

Jun-Jul 2015

**Institute of HCI and Media Integration**, Tsinghua University, Beijing, China.

Advisor: Prof. Jia Jia

- Professional Training: Psychological Stress Detection on Social Media
  - Proposed features related to psychological stress from text (word embedding) and photos (image sentimental analysis)
  - Utilized social role of users to improve the model by clustering algorithm
  - Considered social relationship to predict status of inactive users

Sep-Dec 2014

### **National Engineering Laboratory of Next-Generation Internet and Interconnecting Equipment**, Tsinghua University, Beijing, China.

Advisor: Prof. Youjian Zhao

- Challenge Project: Chinese Chat platform on FPGA
  - Only group that connects two FPGA platforms through serial communication
  - Proposed a simple typewriting to support chatting in Chinese
  - Awarded as the best project among all groups

May-Aug 2014

### **Information Retrieval Group**, Tsinghua University, Beijing, China.

Advisor: Prof. Min Zhang

- Research Assistant: Long Tail Query on Search Engine
  - Utilized random walk on heterogeneous networks of queries and documents
  - Improved the efficiency of random walk in terms of data structures

## **Publications**

- [1] **Yuan Yuan**, Sihong Xie, Chun-ta Lu, Jie Tang and Philip S. Yu  
M-square: An Opinion Spam Detection Framework using Multi-site Temporal Sentimental Patterns  
**WWW 2016**: Submitted to 25th International Conference on World Wide Web

## **Selected Academic Honors & Awards**

2015

### **CCF Outstanding Undergraduate Award.**

- Only two students at Tsinghua University and approximately 100 in China receive this award each year
- Offered by China Computer Federation (CCF)

2014

### **National Scholarship of China.**

- Only three students from Dept. Computer Science at Tsinghua University are awarded each year
- It is the top scholarship provided by Chinese government (Ministry of Education of P.R. China)

2013-present

### **Singapore Technology Engineering Overseas Scholarship.**

- Only six students at Tsinghua University received this award
- Offered by Singapore Technologies Engineering Ltd

## **Professional Skills**

**Programming** Proficient in **C/C++**, **Java** and **Python**. Capable of **Matlab**, **Scala**, **VHDL/verilog**, **JavaScript**, **HTML/CSS**, **STATA** and **LaTeX**. **Github**: <http://github.com/yuany12>

**English** Fluent in English Reading, Writing and Speaking

## **Services**

2015

**Reviewer of TKDD**, Transactions on Knowledge Discovery from Data, Oct. 2015.

Aug 2013-Jan 2014

### **E-love Social Practice**, Team Leader.

- Collected spare computers and established computer classrooms for schools of children of migrant workers, who had hardly used computers before
- Won Brand Practice Team Prize of Tsinghua University (top 10)

Jul-Aug 2013

### **Summer Service and Learning Program in Rural China**, Team Leader.

- Volunteered to teach over 400 secondary students in rural China, with ten undergraduates from mainland China, Hong Kong and USA