# Jiaming Song

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## Education

2016 – **Stanford University (Expected),** Palo Alto, CA.
Ph.D. Program in Computer Science

2012 – 2016 **Tsinghua University (THU),** Beijing, China.
B.Eng. (Expected) in Computer Science and Technology
**GPA**: 93/100. **Rank**: 1/116.

July 2014 **National Tsing Hua University (NTHU),** Hsinchu, Taiwan.
Exchange student, Electrical Engineering and Computer Science

## Publications and/or Submitted Manuscripts

Current Jun Zhu, Jiaming Song and Bei Chen. **Max Margin Nonparametric Latent Feature Models for Link Prediction**
Under review by *the IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*.

September 2015 Canyao Liu*, Jiaming Song* and Chuan Yu*. **Organizational Churn: A Roll of the Dice?**
In *Undergraduate Mathematics and Its Applications*, Journal Issue 36.2. Corresponding author.

Feburary 2016 Bei Chen, Ning Chen, Jun Zhu, Jiaming Song and Bo Zhang. **Discriminative Nonparametric Latent Feature Relational Models with Data Augmentation**
In *the 30th Association for the Advancement of Artificial Intelligence (AAAI) Conference*.

Current Jiaming Song, Zhe Gan and Lawrence Carin. **Generalized Temporal Sigmoid Belief Networks for Sequence Generation and Classification**
Under review by *the 33rd International Conference on Machine Learning (ICML)*.

## Research Experiences

December 2015 till now **Lab of Multimedia & Networking,** Tsinghua University. Advisors: Prof. Wenwu Zhu & Peng Cui.
Working on graph embedding.

July 2015 - September 2015 **Information Initiative @ Duke (iiD),** Duke University. Advisor: Prof. Lawrence Carin.
Worked on conditional factored deep generative models using recent Neural Variational Inference methods, which allows for semi-supervised deep learning and sequence generation with side information. **Our work is submitted to *the 33rd International Conference on Machine Learning*.**

November 2014 - June 2015 **Statistical AI & Learning (TSAIL) Group,** Tsinghua University. Advisor: Prof. Jun Zhu.
Explored stochastic variational methods for link prediction problems. Proposed an efficient method that would train on a network with over 3 million nodes, a significant improvement over original methods. **Our work is under review by *the IEEE Transactions on Pattern Analysis and Machine Intelligence*.**

July 2014 - October 2014 **Visual Computing Group,** Microsoft Research Asia. Advisor: Jingdong Wang.
Worked on classification and detection algorithms using deep learning methods; studied and modified Caffe, an open-source deep learning framework in C++ and CUDA; implemented a convolutional neural network for multiple label image annotation which achieved state-of-the-art precision results.

October 2013 - June 2014 **TSAIL,** Tsinghua University. Advisor: Prof. Jun Zhu.
Implemented a Gibbs sampling benchmark algorithm for Scalable Inference for Logistic Normal Topic Models (accepted by NIPS 2013).

## Honors and Awards

June 2015 **Google Excellence Scholarship,** issued by Google.
This scholarship is offered to Chinese undergraduate and graduate students who possess remarkable academic achievements and project experiences. 58 students are selected nationwide (6 in Tsinghua University).

April 2015 **Outstanding Winner,** 2015 Interdisciplinary Contest in Modeling, issued by the Consortium for Mathematics and Its Applications (COMAP).
Highest award (9 out of 2317) of the contest. Published a paper which models organizational churn using Bayesian-inspired methods and network science. See github.com/jiamings/icm2015 for more details.

April 2015 **Third Prize,** 33rd Tsinghua Challenge Cup, issued by Tsinghua University.
Our project implements fast, scalable video segmentation and classification which utilizes deep activation features. Please see jiamings.github.io/projects/decaf-video for details.

October 2014 **Outstanding Undergraduate,** issued by the China Computer Federation (CCF).
Only 4 students in Tsinghua, and 100 in China are awarded each year. Attended China National Computer Congress, where we received the award and had the pleasure to meet Alexander Wolf (President of the ACM) and Ivan Sutherland (Turing Award 1988).

May 2014 **Spark Program for Technological Innovation,** Tsinghua University.
Among top 50/3000 students for achievements in scientific and technological innovations.

December 2013 **Zhong Shimo Scholarship,** issued by Dept. of Computer Science and Technology.
Highest scholarship in the CS Department for academic achievements, social activities, and charity work. (top 0.75%)

July 2011 **Bronze Prize, National Olympiad in Informatics,** issued by China Computer Federation (CCF).

## Programming Experience

Proficient in C++, Python and Matlab. Capable of Java, LaTeX, Julia, C#, R, CUDA, Javascript, HTML/CSS, VHDL and Verilog. Some of my projects can be found on jiamings.github.io/projects.

December 2014 **Video Classification with Visual and Audio Features**, Course Project.
This project aims to do fast and scalable video sequence classification through deep feature extraction methods. We use **Caffe** for deep visual feature extraction.

May 2015 **GeoRun - A Unity Game with Kinect Controls**, Course Project
We developed GeoRun, which is a simplified Temple Run game developed with Unity and Kinect SDK v1.8.

June 2015 **TUSK - Tsinghua University Search Kit**, Course Project
A search engine over Tsinghua news and documents with auto-completion and voice search.

November 2015 **EPOC - Emotion Personalized | Online Chat**, for HackShanghai, China's largest hackathon.
Modifying wallpapers and background music by mind, with the help of Emotiv EPOC.
Our project was reported by International Channel Shanghai.

## Language Proficiency

TOEFL Total: 113 (Reading: 30; Writing: 29; Speaking: 24; Listening: 30).

GRE Verbal: 160/170 (85%); Quantitative: 170/170 (98%); Analytical Writing: 5.0/6.0 (93%).

## Extracurricular Courses

Janurary 2014 **Machine Learning** by Stanford University on Coursera.

May 2015 **Introduction to Marketing** by University of Pennsylvania on Coursera.

June 2015 **Introduction to Financial Accounting** by University of Pennsylvania on Coursera.

November 2015 **Social and Economical Networks: Models and Analysis** by Stanford University on Coursera.

## Activities and Societies

Current **Association for Student International Communication,** Tsinghua University.
One of the top student associations in Tsinghua devoted to projects that serve to expand the international vision of Tsinghua students.

August 2013 **Building Bridges Charity Project,** Coordinator, Tsinghua University.
Spend one week teaching high school students in Lishui, Zhejiang with students from Tsinghua U., Peking U. Yale U, etc. Coordinated the team of Tsinghua students.

August 2014 **Initiating Mutual Understanding through Student Exchange,** Vice President, Tsinghua U, Peking U, and Harvard U.
Organized the event planning and design process for IMUSE, a 8-day forum where students from China and the US. share their life stories and thoughts, and experience life together.