

# Jiaming Song

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## Education

- 2012 – 2016 **Tsinghua University (THU)**, Beijing, China.  
B.Eng. (Expected) in Computer Science and Technology  
**GPA:** 92.83/100. **Rank:** 3/136.
- July 2014 **National Tsing Hua University (NTHU)**, Hsinchu, Taiwan.  
Exchange student, Electrical Engineering and Computer Science

## Publications and/or Submitted Manuscripts

- June 2015 **Jun Zhu, Jiaming Song** and Bei Chen. **Max Margin Nonparametric Latent Feature Models for Link Prediction**  
Submitted to *the IEEE Transactions on Pattern Recognition and Machine Intelligence (TPAMI)*.
- September 2015 **Jiaming Song**, Canyao Liu and Chuan Yu. **Organizational Churn: A Roll of the Dice?**  
In *Undergraduate Mathematics and Its Applications*, Journal Issue 36.2. Corresponding author.
- September 2015 Bei Chen, Ning Chen, **Jun Zhu, Jiaming Song** and Bo Zhang. **Discriminative Nonparametric Latent Feature Relational Models with Data Augmentation**  
Submitted to *the 30th Association for the Advancement of Artificial Intelligence (AAAI) Conference*.
- October 2015 **Jiaming Song, Zhe Gan** and Lawrence Carin. **Generalized Temporal Sigmoid Belief Networks for Sequence Generation and Classification**  
Submitted to *the 19th International Conference on Artificial Intelligence and Statistics (AISTATS)*.

## Research Experiences

- July 2015 - **Information Initiative @ Duke (iiD)**, Duke University. Advised by Prof. **Lawrence Carin**.
- September 2015 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 19th International Conference on Artificial Intelligence and Statistics.**
- November 2014 **State Key Lab of Intelligent Technology and Systems (TNList)**, Tsinghua University.  
- June 2015 Advised by 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 submitted to the IEEE Transactions on Pattern Recognition and Machine Intelligence.**
- July 2014 - **Visual Computing Group**, Microsoft Research Asia. Advised by **Jingdong Wang**.
- October 2014 Worked on classification and detection algorithms using deep learning methods; studied and modified Caffe, and 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 - **TNList**, Tsinghua University. Advised by Prof **Jun Zhu**.  
June 2014 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](https://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](https://jiamings.github.io/projects/decaf-video) for details.
- October 2014 **Outstanding Undergraduate**, issued by the China Computer Federation (CCF).  
Only 2 students in Tsinghua, and 100 in China are awarded. 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.

## Programming Experience

- Proficient in C++, Python and Matlab. Capable of Java,  $\text{\LaTeX}$ , Julia, C#, R, CUDA, Javascript, HTML/CSS, VHDL and Verilog. Some of my projects can be found on [jiamings.github.io/projects](https://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.

## Language Proficiency

- TOEFL Total: 113 (Reading: 30; Writing: 29; Speaking: 24; Listening: 30).  
GRE Verbal: 160/170; Quantitative: 170/170; Analytical Writing: 5.0/6.0.

## Extracurricular Courses

- January 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.

## 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.
- Current **Badminton Team**, Dept. of Computer Science and Technology, Tsinghua U.
- 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.