Jiaming Song

✆ +86 18001585905
✉ jiaming.tsong@gmail.com
🖥 jiamings.github.io

Education

2012 – 2016 **Tsinghua University**, *Beijing, China*.
B.Eng. (Expected) in Computer Science and Technology
GPA: 92.83/100. **Rank**: 3/136.

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

Research Experience

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. **We plan to submit our work to *the 19th International Conference on Artificial Intelligence and Statistics*.**

November 2014 – June 2015 **State Key Lab of Intelligent Tech. and Systems (TNList)**, *Tsinghua University*, Advisor: Prof. Jun Zhu.
Further explored more acceleration method for link prediction problems. Proposed an efficient method that would train on a network with over 3 million nodes, which is over ten thousand times increase over original methods. **Our work is submitted to *the IEEE Transactions on Pattern Recognition 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, 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 – June 2014 **State Key Lab of Intelligent Tech. and Systems (TNList)**, *Tsinghua University*, Advisor: Prof. Jun Zhu.
Implemented a Gibbs sampling benchmark algorithm for Scalable Inference for Logistic Normal Topic Models (accepted by NIPS 2013).

Publications and/or Submitted Manuscripts

June 2015 **Max Margin Nonparametric Latent Feature Models for Link Prediction**, Jun Zhu, **Jiaming Song**, Bei Chen.
Submitted to *the IEEE Transactions on Pattern Recognition and Machine Intelligence*. My contributions include using stochastic methods to greatly improve the inference speed of the original algorithm. With my enhancement, the algorithm can now do inference on networks with millions of nodes, whereas it could only do a few hundred nodes previously.

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

September 2015 **Discriminative Nonparametric Latent Feature Relational Models with Data Augmentation**, Bei Chen, Ning Chen, Jun Zhu, **Jiaming Song**, Bo Zhang.
Submitted to *the 30th Association for the Advancement of Artificial Intelligence (AAAI) Conference*

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) this year.

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.

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.

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(15000 CNY) in the CS Department for academic achievements, social activities, and charity work.

Extracurricular Courses

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

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

English Proficiency

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

GRE   Verbal: 159/170; Quantitative: 170; Analytical Writing: 3.5.

Programming Experience

Some of my projects can be found on jiamings.github.io.

Proficient

C / C++ / CUDA / LaTeX   Implemented acceleration methods for link prediction(2000+ lines of code); implemented core algorithm for the Outstanding paper in ICM 2015(800+ lines); implemented extensions to Caffe to create a convolutional neural network for multilabel image annotation.

Python   Developed Biopedia, a web service for the Bioinformatics group in Tsinghua, using the Flask framework and insights of Google Material Design. The service is currently deployed at `biopedia.bigdata-thu.org`.

Java   Developed a simple instant messaging application with Google Protocol Buffer during exchange in NTHU.

Matlab   Developing deep generative models at Duke (unpublished work). Related GitHub repo available on request.

Familiar (used in at least 1 course project)

Bash, HTML, VHDL, Verilog, R, C#.