

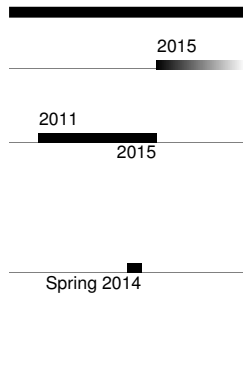
Tianlin Shi

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Education



Stanford University, Stanford, CA.

◦ PhD student in Machine Learning.

Tsinghua University, Beijing, China.

◦ B.Eng. in Computer Science.

◦ Enrolled in [Yao Class](#), a special pilot CS program led by [Prof. Andrew C. Yao](#) for talented students.

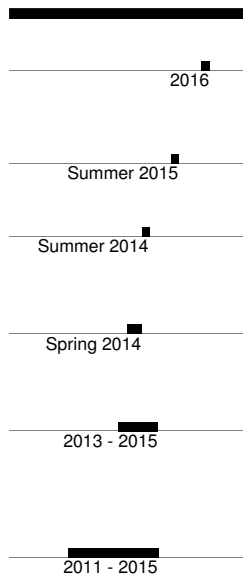
◦ **GPA: 94 / 100. Rank: top 1 / 39** in [Yao Class](#).

Massachusetts Institute of Technology, MA, US.

◦ Exchange student, Electrical Engineering and Computer Science (Course VI).

◦ **GPA: 5.0 / 5.0.** Took graduate-level courses: 6.437 inference and information, 6.252 nonlinear programming, 6.816/836 multicore programming.

Experience



KPCB Engineering Fellow, Silicon Valley.

As part of the program, I plan to spend the summer working with DJI on developing deep learning based software for drones.

Dropbox HQ, San Francisco, CA. *Software Engineer Intern - Computer Vision.*

Worked as an intern on the ML team at Dropbox.

Stanford AI Lab (SAIL), Stanford University, Stanford, CA. *Summer Research Intern.*

Worked with Professor [Percy Liang](#) on heterogeneity in probabilistic inference and devised methods that lead to 2-5X speedup for a wide class of structured prediction models.

Computer Science and Artificial Intelligence Laboratory (CSAIL), MIT, Cambridge, MA.

Advisor: [Dr. Vikash Mansinghka](#). Contributed to a probabilistic programming system called [Venture](#) and built scalable HMC inference algorithms using automatic gradients.

Microsoft Research Asia, Beijing, China.

Mentor: [Thomas Moscibroda](#), Senior Researcher & Research Manager. I developed compressive sensing algorithms to effectively reduce cost of correlated data collection on sensor/social networks, such as air quality indices at different locations in Beijing.

State Key Lab of Intelligent Tech. and Systems (TNList), Tsinghua University, Beijing, China.

Worked with [Prof. Jun Zhu](#). and proposed streaming Bayesian learning to scaled up max-margin topic models by orders of magnitudes.

Publications

- [1] Chongxuan Li, [Jun Zhu](#), [Tianlin Shi](#), Bo Zhang. **Max-Margin Deep Generative Models.** **NIPS 2015:** The 29th Annual Conference on Neural Information Processing Systems.
- [2] [Tianlin Shi](#), [Jacob Steinhardt](#), [Percy Liang](#), **Learning to Sample in Structured Prediction.** **AISTATS 2015:** 18th International Conference on Artificial Intelligence and Statistics (Oral).
- [3] [Tianlin Shi](#), [Jun Zhu](#). **Online Bayesian Passive-Aggressive Learning.** **ICML 2014:** 31st International Conference on Machine Learning, Beijing, China, 2014. **Top 18 / 1260+** submissions. [Full version](#) is invited to and under review by **JMLR**.
- [4] [Tianlin Shi](#), Da Tang, et al. **Correlated Compressive Sensing for Networked Data.** **UAI 2014:** 30th Conference on Uncertainty in Artificial Intelligence, Quebec, Canada, 2014.
- [5] [Tianlin Shi](#), Liang Ming, [Xiaolin Hu](#). **A Reverse Hierarchy Model for Predicting Eye Fixations.** **CVPR 2014:** IEEE Conference on Computer Vision and Pattern Recognition, Columbus, USA.
- [6] [Jian Li](#), [Tianlin Shi](#), **An FPTAS for Approximating a Sum of Random Variables.** **ORL:** Operations Research Letters 42.3 (2014): 197-202. Major contributor. Author names under alphabetic order according to CS Theory convention.
- [7] [Tianlin Shi](#), [Alexey Radul](#), [Vikash Mansinghka](#), **Inference with Automatic Gradients in Higher-Order Probabilistic Programs.** **NEML:** Workshop at New England Machine Learning Day 2014.

Honors and Awards

2014

Gold Medal, Andrew C. Yao Award, Tsinghua University.

Highest honor for Yao Class students with extraordinary academic achievements.

2013

Tsinghua-Baidu Scholarship, Tsinghua University.

2013 - 2015

Fellowship of Spark Talents Program, Tsinghua University.

Among top 50 / 3000 Tsinghua students dedicated to scientific and technological innovations.

2012 - 2015

Fellowship of Tsinghua Xuetang Talents Program, Tsinghua University.

Among top 300 / 3000 newly-enrolled Tsinghua students.

2011

Gold Medal, China Adolescents Science and Technology Innovation Contest.

Winner of the biggest national competition for adolescents in science and engineering.

Programming Experience

Proficient in C++ and Python. Capable of Java, JavaScript, MATLAB, \LaTeX , Julia, Swift, C#, Objective-C, bash, HTML5/CSS3. Familiar with front-end stack and machine learning algorithms. Github: <https://github.com/strin>.

2015

Cal Hacks 2.0, UC Berkeley.

Built **Hermes**: an end-to-end itinerary planning and execution bot that could call Uber automatically for users.

2015

HackGT, GeorgiaTech.

Built **FlightX**, an app for planning optimal flight itinerary based on user preferences.

2015

Unique Hack Day, Wuhan, China.

Built "Hummer": a music game where players could learn singing through playing a game. The game recognizes singing pitches and use them to control a bird.

2014

HackShanghai: China's largest college Hackathon, NYU Shanghai.

Built a smart-watch app enabling a fresh way of reading.

2014

HackPrinceton, Princeton University.

Built a cooking recipe recommendation system that matches ingredients to recipes.

2014

YaoTalk: A Conversational System for the IIS Domain, Course Project.

A chat bot based on dialogue systems, speech recognition and web crawlers that help people know about Yao class.

2013

RayX – RayTracer for Photo-realistic Images and Videos, Course Project.

A fast ray-tracing software written in C++ 11 [1-min video].

Talks

May, 2015

Learning Where to Sample in Structured Prediction.

International Conference on AI & Stats 2014. See [slides](#).

Jun. 2014

Online Bayesian Passive-Aggressive Learning.

International Conference on Machine Learning 2014. Available on [techtalk.tv](#).

Services

2015

Reviewer of ICML 2015, to be held in Lille, France.

2011 - 2014

China's Welfare Institute Children's Palace, Shanghai, China.

Advised high-school students to work on challenging programming projects.

2012 - 2015

The Association of Student International Communication (ASIC), Tsinghua University.

Contributed to Global Village, a yearly event for students from nearly 20 countries to demonstrate their diverse culture. More than 3000 students are involved each year.

Aug. 2012

College View Program, Shanghai JiaoTong University.

A program to let high-school students experience college life.