

# Sidi Lu

Undergraduate Student from  
the ACM Honored Class  
Shanghai Jiao Tong University



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## RESEARCH INTERESTS

### “Unsupervised Learning for Generative Data Modeling with Modern Machine Learning Techniques”

My research mainly focuses on theoretically and empirically addressing the problem of building effective generative models, including tractable density models (language models, PixelRNN-like models, Flow-based models), implicit density models (GAN/WGANs), explicit variational models (VAEs) and Bayesian Graphical Models.

## EDUCATION

CURRENT, FROM JUL 2018 (FT)

BCS Dept, Massachusetts Institute of Technology  
*Visiting Student/Research Intern*

I am invited by Prof. Joshua B. Tenenbaum for a 7-month visiting at MIT. My main focus is on generative modeling using Bayesian Graphical Model and guided meta-learning of such models.

CURRENT, FROM JUL 2017 (PT)

APEX Lab, Shanghai Jiao Tong University  
*Research Intern*

I am an undergraduate member of the Natural Language Generation and Unsupervised Learning group of APEX Lab, Shanghai Jiao Tong University. My main focus is on generative modeling of sequential discrete data using various approaches like GAN, Inverse Reinforcement Learning and Cooperative Training which is recently proposed by myself.

CURRENT, FROM SEP 2015 (FT)

ACM Class, Zhiyuan College, SJTU  
*Bachelor of Computer Science*

I am an undergraduate student of the ACM Class, Zhiyuan College, Shanghai Jiao Tong University. The ACM Class and Zhiyuan College are special education programs of SJTU, which only accept the top 15% of all students.

## LANGUAGE SKILLS

TOEFL Total: 104 (L28, S23, R28, W25)  
GRE Total: 320 (V150, Q170, W 4.0)

## COURSE

### Theoretical Reinforcement Learning: Online Learning and Optimization

Professor Shengyu Zhang  
Score: **99.0/100.0**, Rank #1

### Machine Learning: Theory and Practice

Professor Weinan Zhang  
Score: **100.0/100.0**, Rank #1

## PUBLICATIONS & SUBMISSIONS

Jiaxian Guo, **Sidi Lu**, Han Cai, Weinan Zhang, Yong Yu, Jun Wang (2017).

Long Text Generation via Adversarial Training with Leaked Information

**AAAI-2018**

**Accepted as a Conference Poster Paper**

Yaoming Zhu, **Sidi Lu**, Lei Zheng, Jiaxian Guo, Weinan Zhang, Jun Wang, Yong Yu (2018).

Texygen: A Benchmarking Platform for Text Generation Models

**SIGIR-2018**

**Accepted as a Conference Short Paper**

**Sidi Lu**, Lantao Yu, Weinan Zhang, Yong Yu (2018).

CoT: Cooperative Training for Generative Modeling of Discrete Data

**NIPS 2018 → ICLR 2019**

**Under Review (NIPS review 8/7/6)**

**Sidi Lu**, Yaoming Zhu, Weinan Zhang, Jun Wang, Yong Yu (2018).

Neural Text Generation: Past, Present and Beyond

**IJCAI 2018 Survey Track**

Submitted

## PROJECTS

COURSE PROJECT OF

“COMPILER: THEORY AND PRACTICE” (SOLO)

**MSharp** in pure C++  
**8000+ lines**

An full-function implementation of the M\* compiler. M\* is a synthetic language which is basically a mixture of C#, C++ and Java. MSharp is fully implemented in vanilla C++11, with no external library included. MSharp is equipped with a hand-made efficient parser and a simple optimized back-end, making it extremely fast.

COURSE PROJECT OF

“PRINCIPLE AND PRACTICE OF COMPUTER ALGORITHMS”

(SOLO)

**Pen** in pure C++  
**2000+ lines**

A simple interpreter of a toy FP language. Designed for academical use in exploration in formal verification.