

# MUYANG LI

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## 🎓 EDUCATION

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### Shanghai Jiao Tong University

Sep. 2016 – Present

*Bachelor of Engineering* in Computer Science

Shanghai, China

- Member of **ACM Class**, an elite CS program for the top 5% talented students.
- GPA: 90.29/100      3.89/4.3

## 🔍 RESEARCH INTERESTS

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My research interest is in the intersection of machine learning, system, and computer graphics.

I am currently working on building efficient and hardware-friendly generative models with its applications in computer vision and graphics.

## 📄 PUBLICATIONS

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- [1] **Muyang Li**, Ji Lin, Yaoyao Ding, Zhijian Liu, Jun-Yan Zhu, and Song Han, *GAN Compression: Efficient Architectures for Interactive Conditional GANs* (CVPR 2020) 📄

## 👤 RESEARCH EXPERIENCES

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### MIT HAN Lab

Jul. 2019 – Jan. 2020

*Research Assistant* Advisor: Prof. Song Han and Prof. Jun-Yan Zhu

Massachusetts, USA

#### GAN Compression: Efficient Architectures for Interactive Conditional GANs

- Design a **general** framework to compress the conditional GANs.
- Achieve **ultra-high compression rate** without losing performance.
- Build a **real-time demo** for our proposed system.
- **Accepted by CVPR2020.**

#### End-to-end Speech Translation System

- Build an end-to-end speech translation system with speech input and output.
- Work on the speech synthesis part of the system.
- Collect massive paired audiobook audio with transcripts as the training data.

### SJTU SpeechLab

Jun. 2018 – Jul. 2019

*Research Assistant* Advisor: Prof. Kai Yu

Shanghai, China

#### Attention Based Data Augmentation for Non-parallel Voice Conversion

- Propose a data augmentation method to generate **precisely time-aligned** parallel speech.
- Show a simple frame-to-frame VC model can **generate high-quality speech with augmented data.**
- The performance of the augmentation method is comparable with traditional methods.

#### Blizzard Challenge 2019 Workshop

- A Corpus-based Speech Synthesis Challenge.
- Modify the our model structure to achieve better performance.
- Collect **massive high-quality audiobook speech data.**
- Build **an audio bandwidth extension system** to further improve audio quality.

#### Singing Synthesis System

- Record substantial clean **pure vocal singing data myself.**
- Build a singing synthesis system based on my own data.

## OTHER EXPERIENCES

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**ACM Coach** Jun. 2018 – Apr. 2019

*Coach of ACM Teams* Manager: Prof. Yong Yu

Brief introduction:

- Organize ACM daily training to help improve the proficiency of team members.
- Lead teams to take part in the competitions, including ICPC World Final 2019.
- Work as one of the judges of CCPC2018 Jilin Regional.
- Participate in ICPC Challenge 2019.

**Data Structure (CS147)** Mar. 2018 – May. 2018

*Teaching Assistant* Manager: Prof. Huiyu Weng

Brief introduction:

- Give lectures on some specific advanced data structure.
- Conceive exam problems to help students practice data structure.

**Student Union of Zhiyuan College** Mar. 2018 – May. 2018

*Staff at Academic Center* Manager: Mr. Shenyuan Chen

Brief introduction:

- Brain-storm ideas for the Super Scholar Club and Student Salon.
- Prepare for the first Knowledge Competition, work on the slides and the counters.

**Deep Learning and Reinforcement Learning Text Book Translation** Mar. 2018 – Jul. 2018

*Participant* Manager: Prof. Kai Yu


Brief introduction:

- Participate in the translation of [Reinforcement Learning: An Introduction](#).

## HIGHLIGHTED PROJECTS

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**GAN Compression** Jul. 2019 – Apr. 2020

 mit-han-lab/gan-compression


*Python* A general conditional GAN Compression framework.

**OS-Kernel** Apr. 2018 – Jul. 2018

 lmxxy/OS-Kernel

*NASM, C* An OS-Kernel from scratch developed by myself.

**Mx\* Compiler** Mar. 2018 – Jun. 2018

 lmxxy/Mx\_star-Compiler

*Java, NASM* A Java-and-C-like language compiler from scratch developed by myself.

**RISCV32 CPU** Dec. 2017 – Jan. 2018

 lmxxy/RISCV-CPU

*Verilog, RISCV* A RISC-V CPU from scratch developed by myself.

## HONORS AND AWARDS

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*Gold Medal*, Award on CCPC2017 Harbin Regional, Ranked 10<sup>th</sup> Oct. 2017

*Gold Medal*, Award on ICPC2017 Qingdao Regional, Ranked 5<sup>th</sup> Nov. 2017

*3<sup>rd</sup> Runner-up*, Award on ICPC2017 Jakarta Regional Nov. 2017

*1<sup>st</sup> Runner-up*, Award on Singing Competition of Zhiyuan College in SJTU Dec. 2017

*Jin Long Yu Fellowship*, Award for top 1% students Dec. 2017

*1<sup>st</sup> Runner up's Coach*, Award on ICPC2018 Pathom Regional Nov. 2018

*A-Class School-level Scholarship*, Award for top 1% students Dec. 2018  
*Zhiyuan Honorary Scholarship* (3 times), Award for top 5% students 2016, 2017, 2018  
*Honorable Mention*, Award for 2019 American Interdisciplinary Contest in Modeling (ICM) Jan. 2019

## ⚙️ SKILLS

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Programming Languages: C++/C = Python > Java

Deep Learning Packages: PyTorch, TensorFlow

Languages: English - Proficient, Mandarin - Native speaker, Japanese - Amateur

Other: Pop Singing