

JIAHUI CHENG

School of the Gifted Young (SCGY)
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EDUCATION

University of Science and Technology of China (USTC)	Hefei, China
Bachelor of Science in Computing and Applied Mathematics	<i>Aug.2016-Present</i>
Talent Program: Double Major in Math and Computer Science	
Cumulative GPA: 3.72/4.3 Rank 8/53 in major, top 15% in SCGY	

RESEARCH EXPERIENCES

Dynamical Sampling	John Hopkins University
Research Assistant Assistant research Prof. Sui Tang Prof. Mauro Maggioni's research group	
<ul style="list-style-type: none">Finished proof of spectrums recovery in dynamical sampling.Proposed DMDctNow working on implement of Prony method and Cadzow denoising method.	

One Class Classification with Cycle-GAN	USTC
Independent Projects Prof. Zhouwang Yang Data Science Lab	
<i>Jul.2018-Jun.2019</i>	
<ul style="list-style-type: none">Trained the classifier with non-negative samples to solve the One-class Classification problemImplemented Cycle Generative Adversarial Network (Cycle-GAN) to learn the distribution of the samples in the latent space.	

Seminar Presentation About A Geometric View of Generative Model	USTC
Research Assistant Prof. Bin Xu Data Science Lab	
<i>Oct.2017-Jun.2018</i>	
<ul style="list-style-type: none">Read the first four chapters of the <i>Optimal Transport Old and New</i>.Read papers about Generative Models in a geometric view.Implemented the WGAN with pytorch.Introduced a new non-adversarial approach of training the generator.	

Energy-saving Neural Network Design Based on FPGA	USTC
Research Assistant Prof. Song Chen Brain-inspired Chips Lab	
<i>Feb.-Oct.2017</i>	
<ul style="list-style-type: none">Studied the theory of the Long Short-Term Memory (LSTM)Implemented LSTM	

AREAS OF INTEREST

Programming

- I can master a **new** programming language in a quite **short** time. This spring I led a group of three students to complete a game in Graphics course within 1 months. We managed to grasp different techniques and apply them to our project.

Convex Optimization

- After reading the book *Numerical Optimization*, I am really interested in how to model the problems in the real world and how to solve the corresponding optimization problems.

Generative Modeling

- Generative Modeling is a really new and attractive area and it grasped my interest in my first year in university. And I have implemented different types of generative models including wGANs.

Optimal Transportation

- I have studied *Optimal Transport* by reading books and papers. Although it's not that easy to really understand the theory but I found it interesting and challenging. And I try to apply it in my Mathematical Modeling course.

TECHNICAL STRENGTHS

- Programming: C, C++, C#, Java, Python, MATLAB, LaTeX, PHP, UNITY, Cinema4D
OpenGL, GLSL, QT
- OS: Windows, Linux
- Hardware: ARDUINO, FPGA

AWARDS AND HONOR

Alumni Scholarship of School of the Gifted Young	<i>Dec. 2018</i>
National Encouragement Scholarship (Top 15% in SCGY)	<i>Dec. 2018</i>
Contemporary Undergraduate Mathematical Contest in Modeling (Third Prize)	<i>Dec. 2018</i>
National Encouragement Scholarship (Top 15% in SCGY)	<i>Dec. 2017</i>
Third Prize in RoboGame in USTC	<i>Dec. 2017</i>
Alumni Scholarship of School of the Gifted Young	<i>Apr. 2017</i>
Scholarship for Outstanding Fresher	<i>Dec. 2016</i>

VOLUNTEER AND WORK EXPERIENCES

Teaching Assistant: Linear Algebra	<i>Sep.2018-Jan.2019</i>
Volunteer: International Cooperation Volunteer Group	<i>Sep.2016-Jun.2017</i>
Volunteer: Admission Service Volunteer Group	<i>Sep.2017-Sep.2018</i>

STANDARD TESTS

TOEFL: 94 (05/04/2019)	GRE: 322 (08/16/2019)
• Reading: 30	• Verbal Reasoning : 152/170
• Listening: 21	• Quantitative Reasoning:170/170
• Speaking: 19 (best score: 21)	
• Writing: 24	

LEADERSHIP EXPERIENCES

Monitor | 00 Class, USTC

- Chaired monthly class meeting; organized more than 6 events and activities including sodality with the School of Foreign Studies in Anhui University.
- Drafted Class regulation and organized the class.