

# Junqi Liu

UNDERGRADUATE OF ACM HONOR CLASS IN SJTU

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## Education

### SJTU(Shanghai Jiao Tong University)

Sep. 2017 - Jun. 2021(expected)

Bachelor of Science in Computer Science

- Member of [ACM Honors Class](#), which is an elite CS program for top talented students. The transcript is attached after this resume.
- Result of last semester's courses cannot be found in the transcript. What should be mentioned is I got full score (100) in 'Computer Version' and 'Algorithm Design and Analysis'.
- Be good at coding courses and mathematics courses.
- Though grades of English course do not look very nice, there is no problem in daily communication.
- Courses with code 'TH' are Chinese politics courses.

## Research Interests

**Computer Vision** Human and Object Interaction(major), 3D Vision(secondary), Robotics(interested)

## Skills

**Programming** C, C++, Python, Java, Pascal, Verilog, Matlab, LaTeX

**Frameworks** PyTorch, TensorFlow

**Languages** Chinese(native language), English

## Publications

### Detailed 2D-3D Joint Representation for Human-Object Interaction

Accepted by CVPR 2020

Yong-Lu Li, Xinpeng Liu, Han Lu, Shiyi Wang, **Junqi Liu**, Jiefeng Li, Cewu Lu

- Utilize single-view human body capture method to obtain detailed 3D body, face and hand shapes.
- Estimate the 3D object location and size with reference to the 2D human-object spatial configuration and object category priors.
- A joint learning framework and cross-modal consistency tasks are proposed to learn the joint HOI representation.

## Submissions

### Deep Video Audio Match Network

Accepted and waiting for publication by ICCTA 2020

**Junqi Liu**, Lesheng Jin, Peiming Yang

- Using our model to do a matching between soundless dancing video and our music library to make it harmonious.
- Music is a kind of data which has rich connotations and is in high dimension for it is very complicated.
- Use Multiple-frame Fully Connected layers and Gated Recurrent Units to learn more information from other frames.

## Research Experience

### Shanghai Jiao Tong University

Jun. 2019 - Present

Undergraduate researcher at [MVG Lab](#), under the supervision of [Prof. Cewu Lu](#)

- Research topic: Human and Object Interaction.
- Worked on HOI detection based on the spatial relationship between human and object.

## Honors & Awards

### SCHOLARSHIP

2018 **Zhiyuan Honorary Scholarship**

SJTU

2018 **Best Leader Scholarship**

SJTU

2017 **Zhiyuan Honorary Scholarship**

SJTU

### PROGRAM COMPETITION

2015 **First Prize** National Olympiad in Informatics in Provinces

China

## Selected Projects

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### M\* Compiler - A Compiler for M\* Language ([Link](#))

Jun. 2019

*Individual project*

- A compiler implemented from scratch in Java. The source language is [M\\*](#), which is a C-and-Java-like language.
- The compiler can not only compile M\* code into NASM correctly, but also do optimization and has close performance as GCC O1.

### Pint Operating System ([Link](#))

Jun. 2019

*Group work project*

- Pintos is an educational operating system for the x86. Pintos was developed for Stanford's CS 140 operating systems course as a successor to Nachos, a less realistic educational operating system.
- Implemented in C, four parts of the project are finished, including threads, user program, virtual memory and file system.

### Reduced Instruction-Set Computer Central Processing Unit ([Link](#))

Jan. 2019

*Individual project*

- A toy RISC-V CPU with 5-stage pipeline, implemented in Verilog HDL.

### Microprocessor without Interlocked Pipeline Stages Simulator ([Link](#))

Jul. 2018

*Individual project*

- A simulator of the five-stage pipeline to process MIPS instructions, implemented in C++.

## Teaching Experience

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### (SJTU MS125) Principle and Practice of Computer Algorithms

Summer 2019

*Lead teaching assistant*

- Designed and prepared a course project (a RISC-V simulator) with other TAs, and taught related knowledge.
- Designed 3 rank-based opening questions for programming examinations.

### (SJTU CS158) Data Structures

Spring 2019

*Lead teaching assistant*

- Designed and prepared a course project (a simple B+ Tree), and taught related knowledge.
- Designed 8 data structure questions for programming examinations.
- Taught lots of data structures including sparse table, segment tree, least common ancestor, priority queue, etc.

### (SJTU CS152) C++ Programming (B)

Autumn 2018

*Teaching assistant*

- Designed 8 data structure questions for programming examinations.
- Taught lots of algorithms including search algorithm, dynamic programming, graph algorithms, etc.

# RECORDS FOR UNDERGRADUATE



COLLEGE: School of Electronic Information and Electrical Engineering MAJOR: Computer Science and Technology(Zhiyuan Honors Program) CLASS: F1703016  
STUID: 517030910409 NAME: Liu Junqi

## ACADEMIC YEAR: 2017-2018

CODE	COURSES	SEMESTER	CREDIT	GRADECODE	CODE	COURSES	SEMESTER	CREDIT	GRADECODE
CS037	Student Forum I	1	2	89	EN063	College English III	2	3	72
CS120	Introduction to Computer Science	1	4	88	MA123	Mathematical Analysis II	2	5	91
CS152	Programming	1	5	87	MS106	Programming Practice	2	3	95
EN062	College English II	1	3	67	MS123	The Little Story Behind the Scientific Ideas II	2	1	88
MA146	Mathematical Analysis I	1	5	84	PE002	Physical Education II	2	1	82
MA236	Linear Algebra	1	5	96	PH111	Physics Laboratory I	2	1.5	85
MS101	The Little Story Behind the Scientific Ideas I	1	1	89	PH114	Introduction to Physics	2	5	92
PE001	Physical Education I	1	1	91	TH004	Military Theory	2	1	77
TH000	Cultivation of Ethics and Fundamentals of Law	1	3	87	TH010	Military Training	2	3	P
TH020	Circumstance and Policy	1	0.5	B+	TH020	Circumstance and Policy	2	0.5	78
CS038	Student Forum II	2	2	84	TH021	Modern Chinese History	2	2	81
CS147	Data Structure	2	4	95					

## ACADEMIC YEAR: 2018-2019

CODE	COURSES	SEMESTER	CREDIT	GRADECODE	CODE	COURSES	SEMESTER	CREDIT	GRADECODE
CS039	Student Forum III	1	2	84	CS259	Numerical methods for machine learning and data science	2	2	87
EN064	College English IV	1	3	73	CS389	Mathematics for the Information Age	2	2	93
MA235	Introduction to Scientific Computation	1	3	87	CS420	Machine Learning	2	3	88
MS108	Computer Architecture	1	4	90	MS107	Probability	2	3	91
PE003	Physical Education III	1	1	92	MS110	Operating System	2	4	93
PH116	Introduction to Physics	1	5	88	MS208	Compiler Design and Implementation	2	3.0	90
PH117	Physics Laboratory II	1	1.5	81	PE004	Physical Education IV	2	1	83
TH020	Circumstance and Policy	1	0.5	75	TH007	Basic Theory of Marxism	2	3	62
TH029	Introduction to Mao Zedong's Thoughts and Theoretical System of Socialism with Chinese Characteristics	1	3	68	TH020	Circumstance and Policy	2	0.5	B+
CS040	Student Forum IV	2	2.0	86					

NOTE1-MARK "△" Means the Course Failed NOTE2-The sheet should be stamped to be official

Registrar: Registrar's Office, Shanghai Jiao Tong University <http://jwc.sjtu.edu.cn>

2019-12-13

