

JIAYUAN YE

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EDUCATION

University of Science and Technology of China

August 2016-Present

Major: Computational Mathematics (junior)

Overall GPA: 3.74(ranking:7/55)

TOEFL iBT: 104(total) 30(reading) 27(listening) 23(speaking) 24(writing)

GRE: 154(Verbal)+167(Math)+3.5(AW)

Core Courses:

1. **General Math Courses:** Mathematical Analysis A1,A2,A3(88,91,90), Linear Algebra B1,B2(95,90), Probability Theory(97), Modern Algebra(92), Real Analysis(86), Differential Equation 1(86), Complex Analysis(85), Functional Analysis(88), Differential Geometry(87)
2. **Major Math Courses:** Numerical Algebra(98), Mathematical Statistics(85), Mathematical Experiments(A), Applied Stochastic Processes(88), Mathematical Modeling(90) Combinatorics, Topology
3. **CS Relating Courses:** Computer Programming A(88), Data Structure and Database(91), Introduction to Computer Systems(H)(88), Algebraic Structure(94), Computer Graphics(92), Introduction to Algorithms(81), The Methodology of VR
4. **Physics Courses:** Mechanics and Thermal Physics(85), Electromagnetism B(86), Optics and Atomic Physics, College Physics Experiment 1&2
5. **other Courses:** Design and Practice of Robot(A), Mechanical Drawing and CAD(92), Electrical Engineering(95)

A SHORT BIOGRAPHY

Engineering department

August 2016 - July 2017

undergraduate

USTC

- **Robogame Competition** From June 2017 to October 2017, my team took part in the RoboGame competition held by the engineering department of our school and the robot club. We constructed a robot doing traditional Chinese paper-cutting.

School of Mathematics

July 2017 - June 2018

undergraduate

USTC

- **Change Major** In June 2017, I passed the examination for changing my major and got transferred to the School of Mathematics.
- **Paticipating in ICM** In Feburary 2018, my team took part in the the Interdisciplinary Contest in Modeling(ICM) held by COMAP. We applied neural network to problem E and built a model evaluating the effect of various factors to a region's overall fragility. And we got Meritous Winnner prize.
- **Computer Graphics Class Project** In May 2018, my team did a 3-week project for our computer graphics class. We constructed a tower defense game using Unity 3D and we focused on making buildings with intresting geometry.

Summer Institute at Oxford

July 2018 - August 2018

student

Oriel College, Oxford

- Studied 4 courses: AI with focus on search-Part 1, AI with focus on search-Part 2(93), quantum computing(98), numerical analysis&image processing and ontologies(96).

Division of Information and Computing Sciences
undergraduate

Aug 2018 - Now
USTC

- **Undergraduate Research Program** Starting from Dec. 31. 2018, I started working on a undergraduate research program under the guidance of Prof. XiandeZhang. The project mainly covers the relation between AONT, orthogonal arrays and exposure-resilient functions.
- **Project:Texture Synthesis** In the 'introduction to algorithms' class, I worked on a course project under the guidance of Assoc.Prof. JuyongZhang. The project mainly covers texture synthesis applied minicut of graph.

Cryptanalysis Taskforce research team
research intern

July 2019 - Oct 2019
Nanyang Technological University

- **Project:Preimage attacks on Keccak** Under the supervision of Assist. Prof. Guo Jian, I worked on a project studying the preimage attacks on KECCAK(A family of hash functions that won the SHA-3 competition in 2012).

AWARDS AND ACHIEVEMENTS

In Sep 2016, I won Bronze Prize for outstanding Freshmen Scholarship.

In September 2017, I was awarded National scholarship(**TOP 1%**).

In February 2018, I took part in ICM held by COMAP and won Meritous Winner prize(**TOP 10%**).

In Sep 2018, I won the Yuanqin Harvest moon Sci-Tech scholarship(**3%**).

In February 2019, I took part in MCM held by COMAP and won Honorable mention prize(**TOP 20%**).

TECHNICAL STRENGTHS

Computer Languages	C/C++, python, matlab
Mathematical software	Mathematica, Sage
Tools	latex