

# JINYUAN LIU

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jinyuanliu@ucsd.edu

## EDUCATION

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### Ph. D. Student in Fluid Mechanics

Jan. 2021 – present

Department of Mechanical and Aerospace Engineering, UC San Diego

Advisor: Prof. Sutanu Sarkar

### B. S. E. in Engineering Thermo-physics (with distinction)

Aug. 2016 – June 2020

Department of Engineering Mechanics, Tsinghua University

- GPA: 3.74/4.00; Major rank: 4/47 in the program, and 1/11 in the major.
- Dissertation Title: Large- and very-large-scale structures in turbulent channels

### Exchange Research Student

Sep. 2019 – Mar. 2020

School of Aeronautics, Universidad Politécnica de Madrid

Advisor: Prof. Javier Jiménez

## AWARDS

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Academic Distinction Award for Graduates, Tsinghua University (10 %)	2020
Outstanding Undergraduate Dissertation, Tsinghua University (5 %)	2020
Second Prize for Student Research Training, Tsinghua University	2019
Scholarship for Scientific Innovation, Tsinghua University (3 %)	2018
Scholarship for Overall Excellence, Tsinghua University (8 %)	2018
Scholarship for Academic Distinction, Tsinghua University (25 %)	2017,2018,2019
First Prize, National Aerospace Knowledge Competition for College Students	2018

## MEMBERSHIPS

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**Fellowship, the [Spark Innovative Talent Cultivation Program](#), Tsinghua University** 2018  
(50 out of 3500 each year, aiming at cultivating future research leaders)

**Student Membership, American Physical Society, Division of Fluid Dynamics** 2019 –

## RESEARCH EXPERIENCE

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### Graduate research assistant

Jan. 2021 – present

Mechanical and Aerospace Engineering, UC San Diego

Advisor: Prof. Sutanu Sarkar

### Post-baccalaureate research assistant

July 2020 – Dec. 2020

Department of Engineering Mechanics, Tsinghua University

Advisor: Prof. Wei-Xi Huang

### Research assistant

Sep. 2019 – Mar. 2020

School of Aeronautics, Universidad Politécnica de Madrid

Advisor: Prof. Javier Jiménez

### Visiting Research Student

July 2019 – Aug. 2019

Mechanical and Mechatronics Engineering, University of Waterloo

Advisors: Prof. Jean-Pierre Hickey, Prof. Xiaohua Wu

## PUBLICATIONS AND TALKS

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### Publications

1. Chunmei Xie, Jinyuan Liu, Jing-Wei Jiang, and Wei-Xi Huang. Numerical study on wetted and cavitating tip-vortical flows around an elliptical hydrofoil: Interplay of cavitation, vortices, and turbulence. *Physics of Fluids*, 33(9):093316, 2021

### Talks

## TECHNICAL SKILLS

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<b>Programming Languages</b>	FORTRAN, C++, MATLAB, Python, L <sup>A</sup> T <sub>E</sub> X, Bash(Unix Shell)
<b>Software Capability</b>	Tecplot, OriginPro, OpenFOAM, Mathematica
<b>CAE Usage</b>	AutoCAD, SOLIDWORKS, ANSYS ICEM, ANSYS Fluent

## EXTRA-CIRRICULAR

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**JUMP Mentor, UC San Diego** 2020

- Graduate mentor for 4 freshmen, the Jacob Undergraduate Mentor Program, Jacob School of Engineering, UC San Diego

**Freshman Peer Mentor, Tsinghua University** 2018,2019

- Peer mentor of 8 students in the grade of 2018 and 7 students in the grade of 2019, School of Aerospace, Tsinghua University

**Chair, Council of the 12<sup>th</sup> Spark Innovative Talent Cultivation Program** 2018 – present

- Lead a peer-elected council, maintaining the connection within members

**Former members, the Baseball team and the Water Polo Team, Tsinghua University**

**Go (Wei-Qi) Player, Amateur 5-dan, Chinese Go Association** 2013

**Honorary citizen, Tulsa, OK** 2014

**Aviation Photographer**

- With more than 350 photos accepted by the largest peer-reviewed database [www.jetphotos.com](http://www.jetphotos.com), two of which as 'Today's Most Popular' featured on the database front page
- Profile: <https://www.jetphotos.com/photographer/144411>

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