

# YIHENG ZHANG

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## SUMMARY

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I'm an undergraduate student currently studying in Shanghai Jiao Tong University (SJTU) majoring in computer science and will achieve my Bachelor degree in Jun. 2019. Since Sept. 2015, I've been a member of Zhiyuan Honor Program of Engineering which belongs to Zhiyuan College (independent research-oriented college in SJTU).

My research interests basically lie in Computer Graphics and Vision. Most of my recent research is related to global illumination while a bunch of other topics remain attractive to me, including geometric modeling, texture simulation, scene reconstruction, 3-D vision and animation.

## EDUCATION

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**B.S. in Computer Science and Engineering** September 2015 - June 2019 (Expect)  
School of Electronic Information and Electrical Engineering  
Shanghai Jiao Tong University, Shanghai, China  
Overall GPA: 90.87/100, Major GPA: 93.90/100

**Zhiyuan Honor Program of Engineering(top 4%)** September 2015 - June 2019 (Expect)  
Zhiyuan College  
Shanghai Jiao Tong University, Shanghai, China  
Honor Course GPA: 90.46/100

**Exchange Undergraduate** June 2017 - July 2017  
School of Engineering  
University of Melbourne, Victoria, Australia  
Course Grade: H1

## RESEARCH EXPERIENCE

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**Lab of Digital Media and Data Reconstruction** February 2017 - Present  
Shanghai Jiao Tong University, Shanghai, China  
Advisor: Lizhuang Ma (Distinguished Professor)  
Research Topic: global illumination, texture alignment and more CG related optimization

## PUBLICATIONS

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**Light Transport Simulation via Generalized Multiple Importance Sampling** November 2018  
*Qi Liu, Yiheng Zhang, Lizhuang Ma - CVM 2018 Oral*

- A generalized multiple importance sampling in global illumination
- Improved the efficiency of vertex connecting and merging algorithm by about 20%

## SELECTED PROJECTS

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**Interactive Object Selection Based on U-Net** October 2017 - January 2018  
*Computer Graphics Course Group Project*

- Project ranked top 1%
- An open-source interactive solution for object selection.
- Increase accuracy by 15.91% on salient object compared with *Deep Interactive Object Selection (CVPR 2016)*.

**Simple Path Tracer** November 2017  
*Computer Graphics Course Individual Project*

- Scene built and core algorithm implemented by myself, mathematical utilities courtesy: [SmallVCM](#)
- Reflection, refraction and Phong are included

## HONORS

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<b>Meritorious Winner</b> MCM/ICM Mathematical Contest in Modeling	January 2017
<b>Zhiyuan Honor Scholarship</b> Zhiyuan College, Shanghai Jiao Tong University	December 2017
<b>Wish Scholarship (top 3%)</b> Wish Ltd.	September 2017
<b>Zhiyuan Honor Scholarship</b> Zhiyuan College, Shanghai Jiao Tong University	December 2016
<b>Tung OOCL Scholarship Scholarship (top 6%)</b> The Tung Foundation & Orient Overseas Container Line Ltd.	October 2016

## LANGUAGE & SKILLS

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<b>English Proficiency</b>	TOEFL score:113 (R:30, L:29, S:24, W:30)
<b>Programming Language</b>	C/C++, Python, Matlab, LaTeX
<b>Software</b>	Microsoft Office, Visio; Adobe Photoshop, Illustrator, Premiere

## EXTRA-CIRRICULAR

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<b>Vice Director of Department of Publicity</b> <i>Student Union of SEIEE</i>	May 2016 - September 2017
<ul style="list-style-type: none"> <li>· Responsible for publicity works of events held by SEIEE (School of Electronic Information and Electrical Engineering)</li> <li>· Hold monthly workshop to give presentation of new designing trend</li> </ul>	

<b>President</b> <i>SJTU Band Union</i>	September 2017 - Present
<ul style="list-style-type: none"> <li>· Head director of several campus rock shows</li> <li>· Assistant director of SJTU Oasis music festival</li> <li>· Contributed to a audio technology guidance website (on my github)</li> </ul>	

### Hobbies

- Guitarist/Composer on a metal band
- Calligraphy grade 8 (max 10, China Calligrapher Association)
- 9 year painting learning experience