

# 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. Currently, I am working on Deep Learning based rendering denoise.

## EDUCATION

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<b>B.S. in Computer Science and Engineering</b> School of Electronic Information and Electrical Engineering Shanghai Jiao Tong University, Shanghai, China Overall GPA: 90.87/100, Major GPA: 93.90/100	September 2015 - June 2019 (Expect)
<b>Zhiyuan Honor Program of Engineering (top 4%)</b> Zhiyuan College Shanghai Jiao Tong University, Shanghai, China Honor Course GPA: 90.46/100	September 2015 - June 2019 (Expect)
<b>Exchange Undergraduate (top 1)</b> School of Engineering University of Melbourne, Victoria, Australia Course Grade: H1	June 2017 - July 2017

## RESEARCH EXPERIENCE

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

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<b>Light Transport Simulation via Generalized Multiple Importance Sampling</b> <i>Qi Liu, Yiheng Zhang, Lizhuang Ma - CVM 2018 Oral</i>	April 2018
<ul style="list-style-type: none"><li>· A generalized multiple importance sampling in global illumination</li><li>· Improved the efficiency of vertex connecting and merging algorithm by about 21%</li></ul>	

## SELECTED PROJECTS

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<b>Interactive Object Selection Based on U-Net</b> <i>Computer Graphics Course Group Project</i>	October 2017 - January 2018
<ul style="list-style-type: none"><li>· Project ranked top 1%</li><li>· An open-source interactive solution for object selection (<a href="#">source</a>)</li><li>· Increase accuracy by 15.91% on salient object compared with <i>Deep Interactive Object Selection (CVPR 2016)</i>.</li></ul>	
<b>Simple Path Tracer</b> <i>Computer Graphics Course Individual Project</i>	November 2017

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

### **Isochart-based Auto Geometry Mesh Cutting and UV Alignment**

April 2017 - June 2017

*Lab of Digital Media and Data Reconstruction Project*

- An interactive approach to generate UV alignment of object mesh charts
- Implemented a 3Ds Max plug-in for a VR-company

## **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++(primary), Python(good), Matlab(familiar), LaTeX(good), MySQL(limited), HTML/CSS(familiar), JS(limited)
<b>Software</b>	Microsoft Office, Visio; Adobe Photoshop, Illustrator, Premiere; Maya

## **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

## **EXTRA-CIRRICULAR**

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<b>Vice Director of Department of Publicity</b> <i>Student Union of SEIEE</i>	May 2016 - September 2017
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- Responsible for publicity works of events held by SEIEE (School of Electronic Information and Electrical Engineering)
- Hold monthly workshop to give presentation of new designing trend

<b>President</b> <i>SJTU Band Union</i>	September 2017 - Present
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- Head director of several campus rock shows
- Assistant director of SJTU Oasis music festival
- Contributed to a audio technology guidance website (on my github)

### **Hobbies**

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