

# Dr. Hui Zhang (Ms.) 张慧

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## EDUCATION

|                   |  |                  |
|-------------------|--|------------------|
| 2015.09 – 2020.07 | <b>The University of Hong Kong</b><br>Ph.D. in Computer Science, supervised by Prof. Wenping Wang<br>Research direction : Computer Graphics and Vision, Deep Learning  | Hong Kong, China |
| 2012.09 – 2015.06 | <b>University of Science and Technology of China</b><br>M.Phil. in Control Science and Engineering, supervised by Prof. Shuang Cong<br>Research direction : Quantum system state estimation and tracking control | China            |
| 2008.09 – 2012.06 | <b>Southwest University of Science and Technology</b><br>B.Eng. in Automation, GPA : 3.79/4.0, ranking : 2/202 (top 1%)  | China            |

## RESEARCH EXPERIENCE

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| 2020.09 – 2022.06 | <b>KTH Royal Institute of Technology, Division of Computer Science</b><br>‣ Postdoc Research Fellow<br>‣ Research on Deep Learning, 3D Modeling and Reconstruction of Smart City.  | Stockholm, Sweden  |
| 2018.10 – 2019.02 | <b>The University of Tokyo, HCI for Machine Learning Lab</b><br>‣ Research Assistant, working with Dr. Nobuyuki Umetani and Prof. Takeo Igarashi<br>‣ Research on 3D shape encoding based on deep neural networks, e.g. GANs, VAE.                               | Tokyo, Japan       |
| 2017.06 – 2017.11 | <b>University of Stuttgart, Visualization Research Centre</b><br>‣ Research Assistant, working with Prof. Thomas Ertl<br>‣ Designed a system with 3D segmentation, reconstruction, visualization and 3D shape searching and clustering from porous media dataset | Stuttgart, Germany |
| 2012.06 – 2012.08 | <b>Shenzhen Institutes of Advanced Technology, Chinese Academy of Science</b><br>‣ Visiting student, working at Medical Robotics and Surgical Devices Research Centre<br>‣ Conducted research on medical image segmentation                                      | Shenzhen, China    |

## PUBLICATIONS

- 2021 **Hui Zhang**, Lei Yang, Changjian Li and Wenping Wang. ScaffoldGAN : Synthesis of Scaffold Materials based on Generative Adversarial Networks. (*Computer Aided Design*[J], 2021)
- 2021 **Hui Zhang**, Chuan Wang, Nenglu Chen, Jue Wang, Wenping Wang. Skin Texture Generation via Blue-noise Gabor Filtering based Generative Adversarial Network. (*ACM Multimedia 2020*)
- 2020 **Hui Zhang**, Lei Yang, Runnan Chen, Nenglu Chen and Wenping Wang. Axis-attention-enhanced generative network for the synthesis of 3D micro-structures. (Journal review)
- 2018 **Hui Zhang**, Steffen Frey, Holger Steeb, David Uribe, Thomas Ertl, and Wenping Wang. Visualization of Bubble Formation in Porous Media [J]. *IEEE transactions on visualization and computer graphics*, 2019, 25(1) : 1060-1069. (*Proceeding of IEEE VIS 2018*)
- 2017 **Hui Zhang**, Weikai Chen, Bin Wang and Wenping Wang. By Example Synthesis of Three-Dimensional Porous Materials [J]. *Computer Aided Geometric Design*. Vol.52–53 (2017) : 285–296.
- 2016 Kezhi Li, **Hui Zhang**, Shuang Cong. An improved robust ADMM algorithm for quantum state tomography [J]. (*Quantum Information Processing* 15.6. (2016) : 2343-2358.)
- 2016 Shuang Cong, **Hui Zhang**. Comparative analysis of quantum state estimation algorithm based on compressive sensing[J]. *Pattern Recognition and Artificial Intelligence* 29.2. (2016) : 116-121.
- 2015 Shuang Cong, **Hui Zhang**. Dynamic function Tracking Control of Quantum Systems [J]. *Control and Design*. Vol. 30 (03) (2015) : 485-489.
- 2014 Shuang Cong, **Hui Zhang**, Kezhi Li. An Improved Quantum State Estimation algorithm via Compressive Sensing [C]. (*IEEE International Conference on Robotics and Biomimetic*. (2014) : p2338-2343. )

## SKILLS

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**Programming Languages** C/C++, Python (Pytorch/Tensorflow), Java, Matlab, OpenCV, OpenGL, VTK, D3.js  
Mandarin(native),English(fluent), Cantonese(Basic)

## HONORS AND AWARDS

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2015-2020 HKU Postgraduate Scholarship  
2015 Excellent Graduate student of USTC  
2014 China National Scholarship for Graduate Students  
2013 Guang Hua Educational Fellowship  
2012 Outstanding Graduates Scholarship  
2009-2012 First Prize Undergraduate Scholarship

## TEACHING EXPERIENCE

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| 2018-2019 | <b>Teaching Assistant, The University of Hong Kong</b> <ul style="list-style-type: none"><li>&gt; COMP3230 : Principles of Operating Systems</li></ul>                 |
| 2015-2017 | <b>Teaching Assistant, The University of Hong Kong</b> <ul style="list-style-type: none"><li>&gt; COMP2123 : Programming Techniques and Tools</li></ul>                |
| 2013-2014 | <b>Teaching Assistant, University of Science and Technology of China</b> <ul style="list-style-type: none"><li>&gt; Postgraduate course : Intelligent System</li></ul> |

## RESEARCH INTEREST

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My research interests include Computer Graphics and Vision, 3D modeling, Generative AI, Machine Learning, Visualization.