Haisen Zhao

Telephone: +1 (206) 234 4275 **Email:** haisenzhao@gmail.com

Address: 5000 22nd Ave NE, Apt 201, Seattle, Washington, United States

Marital status: married

Home Page: https://homes.cs.washington.edu/~haisen/

Research Interests: Computer Graphics, Intelligent Manufacturing

Experience

2019.03—now Postdoctoral research associate, working with Prof. Adriana Schulz
Paul G. Allen School of Computer Science & Engineering at the University of Washington

2014.09—2018.12 Interdisciplinary Research Center (IRC),
Computer Science and Technology, Shandong University;

2011.09—2014.07 Research Center of HCI&VR, Computer Software and Theory, Shandong University;

2007.09—2011.07 Digital Media Technology, Software College (GPA: 86/100), Shandong University;

Publications

- Ben Jones, Yuxuan Mei, Taylor Gotfrid, **Haisen Zhao**, Jennifer Mankoff, Adriana Schulz, "Computational Design of Knit Templates", Provisionally Accepted to ACM Transactions on Graphics (TOG), 2020.
- Ali Mahdavi-Amiri, Fenggen Yu, **Haisen Zhao**, Adriana Schulz, and Hao Zhang, "VDAC: Volume Decompose-and-Carve for Subtractive Manufacturing", ACM Transactions on Graphics 2020 (Proceedings of ACM SIGGRAPH Asia 2020)
- Chenming Wu, **Haisen Zhao**, Chandrakana Nandi, Jeffrey Lipton, Zachary Tatlock, Adriana Schulz, Carpentry Compiler, ACM Transactions on Graphics 2019 (Proceedings of ACM SIGGRAPH Asia 2019)
- Xin Yan, Cong Rao, Lin Lu, Andrei Sharf, **Haisen Zhao**, Baoquan Chen, Strong 3D Printing by TPMS Injection, IEEE transactions on visualization and computer graphics (2019) (Presenting on GMP 2019)
- **Haisen Zhao**, Hao Zhang, Shiqing Xin, Yuanmin Deng, Changhe Tu, Wenping Wang, Daniel Cohen-Or, Baoquan Chen, DSCarver: Decompose-and-Spiral-Carve for Subtractive Manufacturing, ACM Transactions on Graphics 2018 (Proceedings of ACM SIGGRAPH 2018)
- **Haisen Zhao**, Fanglin Gu, Qixing Huang, J. A. Garcia Galicia, Yong Chen, Changhe Tu, Bedrich Benes, Hao Zhang, Daniel Cohen-Or, Baoquan Chen, Connected Fermat Spirals for Layered Fabrication, ACM Transactions on Graphics 2016 (Proceedings of ACM SIGGRAPH 2016)
- **Haisen Zhao**, Lin Lu, Yuan Wei, Dani Lischinski, Andrei Sharf,Daniel Cohen-Or, Baoquan Chen, Printed Perforated Lampshades for Continuous Projective Images, ACM Transactions on Graphics 2016 (Presenting on ACM SIGGRAPH 2016)
- **Haisen Zhao**, Lin Lu, Zhitao Bo, Variational Circular Treemaps for Hierarchical Data, Journal of Software (Proceedings of IEEE Pacific Visualization 2015)
- Lin Lu, Andrei Sharf, **Haisen Zhao**, Yuan Wei, Qingnan Fan, Xuelin Chen, Yann Savoye, Changhe Tu, Daniel Cohen-Or, Baoquan Chen, Build-to-Last: Strength to Weight 3D Printed Objects, ACM Transactions on Graphics (Proceedings of ACM SIGGRAPH 2014)
- **Haisen Zhao**, Chenglei Yang, Lin Lu, Xiaoting Wang, Yi-Jun Yang & Xiangxu Meng, An algorithm for visibility computation of points based on Voronoi diagrams[C]//CAD/CG 2012. Beijing: Tsinghua University Press, 2012:438-441 (Best Student Paper)

Academic Activities

2020.11.05 Attended ACM SCF 2020 online

2020.08.17 Attended ACM SIGGRAPH 2020 online

2020.07.19 Invited talk on Visual Computing Summer School of Shandong University

2019.11.29 Given a talk on ACM SIGGRAPH Asia 219 at Brisbane, Australia

2019.10.18 Invited talk on Forth Qilu Youth Forum of Shandong University

2018.08.16 Given a talk on ACM SIGGRAPH 2018 at Vancouver, Canada

2018.06.21 Invited talk on GAMEs Web Seminar

2018.05.05 Invited talk on GAMEs 2018 at Hefei, China

2017.07.30 Attended ACM SIGGRAPH 2017 at Los Angeles, USA

2016.11.04 Invited talk on China CAD&CG 2016 at Hangzhou, China

2016.12.05 Attended ACM SIGGRAPH Asia 2016 at Macao, China

2016.07.24 Given two talks on ACM SIGGRAPH 2016 at Anaheim, USA

2015.07.17 Given a talk on ChinaVis 2015 at Tianjin, China

2015.04.14 Given a talk on IEEE Pacific Visualization 2015 at Hangzhou, China

2014.12.03 Attended ACM SIGGRAPH Asia 2014 at Shenzhen, China

2012.07.08 Given a talk on CAD/CG 2012 at Qingdao, China

Academic Services

ACM SIGGRAPH/Asia reviewer ACM Transactions on Graphics reviewer Eurographics reviewer

Computer-Aided Design reviewer Computers & Graphics reviewer The Visual Computer (TVCJ)

IEEE Computer Graphics and Applications reviewer 3D Printing and Additive Manufacturing reviewer

IEEE Transactions on Automation Science and Engineering (T-ASE) reviewer

Frontiers of Information Technology & Electronic Engineering reviewer

---

Patents and Software Copyright

- Method for planning 3d printing path based on fermat's spiral. US patent, US10639850B2
- Baoquan Chen, Daniel Cohen-Or, Hao Zhang, **Haisen Zhao**
- A printed perforated lampshades generation method for halftone projecting. Invention patents.
  AN:201410420912.4, Lin Lu, Baoquan Chen, Yuan Wei, **Haisen Zhao**
- An improved printed perforated lampshades generation method for halftone projecting. Invention patents.
  AN:201610150875.9, Lin Lu, **Haisen Zhao**, Baoquan Chen, Yuan Wei
- A customized 3D printing method for hollowing out the surface of the model. Invention patents.
  AN: 201510656994.7, Lin Lu, Zhitao Bo, **Haisen Zhao**, Baoquan Chen
- A 3D printing tool path planning method based on Fermat spirals. Invention patents.
  AN:201610242579.1, Baoquan Chen, Daniel Cohen-Or, Hao Zhang, **Haisen Zhao**
- An inner structure optimization method for 3D printing. Invention patents.
  AN: 201410230442.5, Lin Lu, Changhe Tu, Baoquan Chen, Xuelin Chen, **Haisen Zhao**, Yuan Wei, Qingnan Fan
- Interactive system and method of 3D museum based on smartphone. Invention patents.
  AN: 201210057586.6, Li Liu, Chenglei Yang, **Haisen Zhao**, Bing Sun, Xiangxu Meng
- SDUsoft Virtual museum design system based on multi-touch technology V1.0.
  Software Copyright Number: 2013SR007412

Major Achievements

2020 First prize of Shandong Natural Science Award

2019 Doctoral Dissertation Award, CCF

2018 Innovation Capacity Improvement Scholarship, Shandong University

2017 Excellent Graduate Student Scholarship, Shandong University

2016 President Scholarship, Shandong University

2016 National Scholarship, Chinese Education Department

2016 Excellent Doctor's Dissertation Proposal, Shandong University

2015 Excellent Graduate Student Scholarship, Shandong University

2014 First Academic Scholarship, Shandong University

2012 Guanghua Scholarship, Shandong University

2012 CAD/CG 2012 Best Student Paper

2011 Excellent Graduates, Shandong University

2011 Outstanding Undergraduate Graduation thesis, Shandong University

2010 Dean Scholarship Award nomination, Software College, Shandong University

---

Coding

C/C++ skilled; OpenGL skilled; Good at CGAL, Geometric Tools, OpenCascade, FreeCAD, JS, Webgl; Pyhon; Good at Adobe Photoshop, Autodesk Maya, Ulead Video Studio Pro, Adobe Premiere;