

Ming Zou

Ph.D. of Computer Science

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EDUCATION

- Ph.D.** 08/2011 ~ 04/2016
Computer Science, **Washington University in St. Louis, USA (GPA: 3.96/4.0)**
- Dissertation: *Topology Aware Surface Reconstruction from Spatial Curves*
Advisor: Tao Ju
Co-examiners: Nathan Carr, Robert Pless, Yasutaka Furukawa, Yixin Chen
- M.S.** 08/2011 ~ 12/2013
Computer Science, **Washington University in St. Louis, USA**
- Thesis: *An Algorithm for Triangulating 3D Polygons*
- B.E.** 08/2004 ~ 06/2008
Computer Science, **Tsinghua University, China**

WORK EXPERIENCE

Waymo LLC (Formerly known as Google self-driving car team in Google-X)

Mountain View, CA, USA, 01/01/2017~present (Manager: Christian Lauterbach)

- *Software Engineer:* Continue working on developing the laser perception system for self-driving cars, which helps the cars to see and identify objects around. Waymo LLC was part of Google Inc. and is now a company housed under Google's parent company Alphabet Inc..

Google Inc. (Moonshot factory X, formerly known as Google-X)

Mountain View, CA, USA, 04/25/2016~12/31/2016 (Manager: Christian Lauterbach)

- *Software Engineer:* Worked on developing self-driving cars. Built modules to enhance the laser perception system of the self-driving cars, which helps the cars to see and identify objects around.

Google Inc. (Google Map)

Mountain View, CA, USA, 05/11/2015~08/28/2015 (Host: Scott Satkin)

- *Engineering Intern:* Built an image segmentation model based on deep learning (with Google Brain). Built an automatic geometry estimation pipeline for Google Business View of Google Maps, which takes a set of indoor-scene images of a business and automatically generates hypotheses of its floorplan geometry.

Baidu Research US (Baidu IDL, Institute of Deep Learning)

Sunnyvale, CA, USA, 06/16/2014~08/22/2014 (Host: Liang Wang)

- *Research Intern:* Built a system for high-quality surface reconstruction on large-scale point cloud for indoor scenes. Designed algorithms for automatic floor plan extraction. Explored how to leverage RGB images to improve the quality of the reconstruction.

Washington University in St. Louis

St. Louis, MO, USA, 08/21/2011~04/20/2016 (Supervisor: Tao Ju)

- *Research Assistant:* Worked on multiple research projects and developed algorithms in the field of computer graphics and computer vision.
- *Teaching Assistant:* Conducted the course labs of Geometric Computing for Biomedicine (Fall 2013, 2014), ran recitations for both theoretical and programming assignments.

JOURNAL & CONFERENCE PAPER

Topology-controlled Reconstruction of Multi-labelled Domains from Cross-sections

Zhiyang Huang, Ming Zou, Nathan Carr, Tao Ju
ACM Transactions on Graphics (SIGGRAPH 2017)

Topology-Constrained Surface Reconstruction From Cross-sections

Ming Zou, Michelle Holloway, Nathan Carr, Tao Ju
ACM Transactions on Graphics 34(4) (SIGGRAPH 2015)

Anisotropic Geodesics for Live-wire Mesh Segmentation

Yixin Zhuang, Ming Zou, Tao Ju, Nathan Carr
Computer Graphics Forum 33(7) (Pacific Graphics 2014)

An Algorithm For Triangulating Multiple 3D Polygons

Ming Zou, Tao Ju, Nathan Carr
Computer Graphics Forum 32(5) (Eurographics SGP 2013)

A General And Efficient Method For Finding Cycles In 3D Curve Networks

Yixin Zhuang, Ming Zou, Nathan Carr, Tao Ju
ACM Transactions on Graphics 32(6) (SIGGRAPH Asia 2013)

TALKS

"Topology-Constrained Surface Reconstruction From Cross-sections"

the 42th SIGGRAPH Conference and Exhibition (SIGGRAPH)
 Los Angeles, USA, 8/2015

"Anisotropic Geodesics for Live-wire Mesh Segmentation"

the 22th Pacific Graphics (PG)
 Seoul, South Korea, 10/2014

"An Algorithm for Triangulating Multiple 3D Polygons"

the 11th Eurographics Symposium on Geometry Processing (SGP)
 Genova, Italy, 07/2013

"Delaunay Restricted Triangulation of a 3D Polygon"

the 8th Mid-West Graphics Workshop (Midgraph)
 Chicago, USA, 12/2012

TECHNICAL SKILLS

Programming Languages:

C/C++, Mathematica, Python, Java

Operating Systems:

Linux/Unix, Mac OSX, Windows

Other Professional Skills/Tools:

Vim, Visual Studio, Git, Html & CSS, Adobe Photoshop & Premiere, Autodesk Maya, Blender

Languages:

Chinese (native), English (fluent)

EXTRACURRICULAR ACTIVITIES

Committee of the Tsinghua Alumni Association in St. Louis	2013~2016
Committee of the Chinese Student And Scholar Association in St. Louis	2013~2014
Volunteer of the 29 th Summer Olympic Games in National Aquatic Centre in Beijing	2008
Volunteer of the 13 th Summer Paralympic Games in National Aquatic Centre in Beijing	2008
Member of the Medical Emergency Team of Red Cross in Tsinghua University	2007~2008
Vice President of the Science Association in Department of Computer Science in Tsinghua University	2006~2007

AWARDS & HONORS

Feitu Programming Scholarship, Tsinghua University	2008
The 1 st Place in Robotics Workshop in ICISTS-KAIST, South Korea	2008
Social Service Scholarship, Tsinghua University	2007
Excellent Prize of Venture Competition in Tsinghua	2006
The 1 st Place in the National University Entrance Exam (SAT in China) in City Ji'an	2004

REFERENCES

Tao Ju

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Nathan Carr

Principal Scientist & Research Manager at Adobe USA

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Yasutaka Furukawa

Assistant Professor at Washington University in St. Louis

Email: furukawa@wustl.edu