

# Qingnan (James) Zhou

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## CONTACT INFORMATION

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## OBJECTIVE

I specialize in applied geometry processing, computational fabrication and analysis. I enjoy applying novel research findings to solve real world problems, and I am constantly open to opportunities to brainstorm, discuss and collaborate on challenging problems in both academia and industry.

## EDUCATION

**New York University**, New York, NY, USA GPA: 3.987/4.0

Ph.D of Computer Science, under the supervision of Prof. Denis Zorin.  
Sept. 2009 - May 2016

**University of British Columbia**, Vancouver, BC, CANADA GPA: 86.30/100

Master of Computer Science, under the supervision of Prof. Alla Sheffer.  
Sept. 2007 - Aug. 2009

**University of Waterloo**, Waterloo, ON, CANADA GPA: 92.75/100

Bachelor of Computer Science  
Honours Computer Science Program  
Graduated with Distinction, Dean's Honours List  
Sept. 2004 - June 2007

## PUBLICATIONS

**Qingnan Zhou**. Pushing the Limits of Additive Fabrication Technologies, *PhD Thesis, New York University, 2016*.

**Qingnan Zhou**, Alec Jacobson. Thingi10K: A Dataset of 10,000 3D-Printing Models, *arXiv preprint arXiv:1605.04797*, 2016. Eurographics Symposium on Geometry Processing Dataset Award.

**Qingnan Zhou**, Eitan Grinspun, Denis Zorin, Alec Jacobson. Mesh Arrangement for Solid Geometry, *ACM Transactions on Graphics (ToG): Proceedings of ACM SIGGRAPH 2016*, Volume 35, number 4, 2016.

Julian Panetta\*, **Qingnan Zhou**\*, Luigi Malomo, Nico Pietroni, Paolo Cignoni, Denis Zorin. Elastic Textures for Additive Fabrication, (\* joint first authors) *ACM Transactions on Graphics (ToG): Proceedings of ACM SIGGRAPH 2015*, Volume 34, number 4, 2015.

**Qingnan Zhou**, Julian Panetta, Denis Zorin, Worst-case Structural Analysis, *ACM Transactions on Graphics (ToG): Proceedings of ACM SIGGRAPH 2013*, Volume 32, number 4, 2013.

David Harmon, **Qingnan Zhou**, Denis Zorin, Asynchronous Integration with Phantom Meshes, *Proceedings of the 2011 ACM SIGGRAPH/Eurographics Symposium on Computer Animation*, pp. 247-256, 2011.

**Qingnan Zhou**, Tino Weinkauff, Olga Sorkine, Feature-Based Mesh Editing, *Proceedings of the 2011 Eurographics, Short Papers*, 2011.

Ravish Mehra, **Qingnan Zhou**, Jeremy Long, Alla Sheffer, Amy Gooch, Niloy J. Mitra. *Abstraction of Man-Made Shapes*, *ACM Transactions on Graphics (TOG): proceedings of ACM SIGGRAPH Asia*, Volume 28, number 5, 2009.

Tiberiu Popa, **Qingnan Zhou**, Derek Bradley, Vladislav Kraevoy, Hongbo Fu, Alla Sheffer, Wolfgang Heidrich. Wrinkling Captured Garments Using Space-Time Data-Driven Deformation, *Computer Graphics Forum (CGF): special issue of Eurographics*, Volume 28, Number 2, pp. 427-435, 2009.

Hao Zhang, Alla Sheffer, Daniel Cohen-Or, **Qingnan Zhou**, Oliver van Kaick, and Andrea Tagliasacchi, Deformation-Driven Shape Correspondence, *Eurographics Symposium of Geometry Processing (SGP08)*, Volume 27, Number 5, pp. 1431-1439, 2008.

#### PATENTS

**Zhou, Qingnan**; Zorin, Denis; Panetta, Julian. 2014. Structural Weak Spot Analysis. WO2014066538 A1, filed Oct 23, 2013, and issued May 1, 2014.

**Zhou, Qingnan**. 2012. Technique for generating a set of inter-related documents. US8234560 B1, filed April 17, 2009, and issued July 31, 2012.

#### WORK EXPERIENCE **Adobe Research**, San Francisco, CA, USA

*Research Engineer*

**Sep. 2016 - Present**

Bridging the gap between cutting edge research findings with Adobe products.

#### **GeometricCloud LLC**, New York, NY, USA

*Cofounder*

**May 2016 - Sep. 2016**

Provide consulting service in the field of 3D geometry processing for startups.

#### **New York University**, New York, NY, USA

*Research Assistant*

**Sep. 2009 - May 2016**

Completed multiple research projects that were published at top journals/conferences. Developed in-depth knowledge in computational geometry and physics simulation. Created fast prototyping platform for digital geometry processing. Designed multiple physical experiments to validate theoretical results. Experienced in 3D printing and material testing.

#### **Shapeways Inc.**, New York, NY, USA

*Research Intern*

**June 2011 - Aug. 2011, June 2012 - Aug. 2012**

Applied physics-based simulation to solve problems in the emerging 3D printing industry. Developed novel structure analysis algorithm to robustly predict the feasibility of a user uploaded shape for 3D printing.

#### **City University of Hong Kong**, Hong Kong, China

*Research Intern*

**June 2010 - Aug. 2010**

Explored the area of energy based image warping and the possibility of its extension.

#### **Google Inc.**, Mountain View, CA, USA

*Software Engineer in Test - Intern*

**May 2007 - Aug. 2007**

Proposed algorithms to simulate HTTP server with deterministic, finite, randomly generated contents. Implemented compression support for one of the core Google data structures. Partially implemented the crawl/serve simulator based on legacy code.

#### **PMC-Sierra**, Burnaby, BC, CANADA

*Information Services Co-op*

**May 2006 - Aug. 2006**

Developed the Employee On-Boarding Request (EOBR) system, which automates the hiring process for the company world wide. The technologies involved are ColdFusion, VBScript, and SQL.

#### **Hewlett-Packard Canada**, Mississauga, ON, CANADA

*Channel Replenishment Operations Intern*

**May, 2005 - Aug. 2005**

Maintained the Release to Production (RTP) tools and the New/Changed Project Interface (NCPI).

Worked with Microsoft Internet Information Server and Windows SQL Server 2000. Built the server side application to manage enterprise wide database using HTML, JavaScript, Active Server Pages (ASP) with Visual Basic.

#### OPEN SOURCE CONTRIBUTIONS

- PyMesh: Geometry processing library for python. (Main contributor)
- LibIGL: Simple C++ geometry processing library. (Mesh boolean module)
- CGAL: The computation geometry algorithms library. (Reviewer)
- binvox: 3D mesh voxelizer. (IO to .msh format)

#### PROFESSIONAL ACTIVITIES

<b>IPC Member:</b> Eurographics Symposium on Geometry Processing	2018
<b>IPC Member:</b> Eurographics Workshop On Graphics For Digital Fabrication	2016, 2017
<b>Papers Committee:</b> SMI - Fabrication and Sculpting Event	2018
<b>Reviewer:</b> ACM SIGGRAPH	2014, 2016, 2017, 2018
<b>Reviewer:</b> ACM SIGGRAPH Asia	2014, 2015, 2016, 2017
<b>Reviewer:</b> Eurographics	2015, 2016, 2018
<b>Reviewer:</b> Pacific Graphics	2015, 2016, 2017
<b>Reviewer:</b> IEEE Transactions on Visualization and Computer Graphics (TVCG)	2015, 2016, 2018
<b>Reviewer:</b> Computers and Graphics	2018
<b>Reviewer:</b> Compute-Aided Design (CAD)	2017
<b>Reviewer:</b> The Visual Computer (TVCG)	2015
<b>Reviewer:</b> Computer Graphics Forum (CGF)	2014
<b>Reviewer:</b> Robotics and Computer Integrated Manufacturing (RCIM)	2017
<b>Reviewer:</b> Eurographics - short paper	2012

#### INVITED TALKS

- Beijing Film Academy, invitor: Baoquan Chen, *Robust Geometry Processing for Computational Fabrication*, Beijing, China. April 12, 2018.
- University of Hong Kong, invitor: Wenping Wang, *Robust Geometry Processing for Computational Fabrication*, Hong Kong, China. April 10, 2018.
- Zhejiang University, invitor: Xiang Chen, *Robust Geometry Processing for Computational Fabrication*, Hangzhou, China. April 2, 2018.
- Adobe Research, *PyMesh: A Rapid Prototyping Geometry Processing Library for Python*, San Francisco, CA, USA. Feb 28, 2018.
- George Mason University, invitor: Yotam Gingold, *Does it work? Geometry Processing in Real World Applications*, Fairfax, VA, USA. Nov 15, 2017.
- Oculus Research, invitor: Ravish Mehra, *Mesh Arrangements for Solid Geometry*, Redmond, WA, USA. Aug 6, 2016.
- Adobe Research, invitor: Joel Brandt, *Pushing the Limits of Additive Fabrication Technologies*, San Francisco, CA, USA. Aug 3, 2016.
- Siggraph 2016, *Mesh Arrangements for Solid Geometry*, Anaheim, CA, USA. July 25, 2016.
- Mathworks, invitor: Qingmin Shi, *PyMesh and Geometric Algorithms*, Natick, MA, USA. June 10, 2016.
- Siemens Research, invitor: Livio Dalloro, *Pushing the Limits of Additive Fabrication Technologies*, Princeton, NJ, USA. June 3, 2016.
- OnShape, invitor: Ilya Baran, *Pushing the Limits of Additive Fabrication Technologies*, Boston, MA, USA. April 20, 2016.
- Columbia University, invitor: Alec Jacobson, *Pushing the Limits of 3D Printing Technologies*, New York, NY, USA. March 24, 2016.
- Siggraph 2015, *Elastic Textures for Additive Fabrication*, Los Angeles, CA, USA. August 13, 2015.
- Carbon3D Inc., invitor: John Tumbleston, *Pushing the Limits of Additive Fabrication*, Redwood City, CA, USA. August 7, 2015.
- Amazon 3D Printing, invitor: Nancy Yi Liang, *Pushing the Limits of Additive Fabrication*, Seattle, WA, USA. August 3, 2015.
- Autodesk Research, invitor: Nobuyuki Umetani, *Pushing the Limits of Additive Fabrication Technologies*, Toronto, ON, Canada. May 8, 2015.

- Siggraph 2013, *Worst-case Structural Analysis*, Anaheim, CA, USA. July 25, 2013.
- Eurographics 2011, *Feature-Based Mesh Editing*, Llandudno, UK. April 13, 2011.
- Siggraph Asia 2009, *Abstraction of Man-Made Shapes*, Yokohama, Japan. December 17, 2009.

HONOURS AND  
AWARDS

- Winner of Computer Graphics Forum Cover Image Contest (with Prof. Alec Jacobson), 2018
- Eurographics Symposium on Geometry Processing Dataset Award (with Prof. Alec Jacobson), 2017
- NYU Graduate School of Arts and Science MacCracken Award, 2009-2014 (US)
- NSERC Post Graduate Scholarship Master 2007-2008, 2008-2009
- University of Waterloo Dean's Honours List every term since fall 2004
- 2003/2004 National Dean's List (US)