

# Miklós Bergou

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CONTACT INFORMATION Google New York e-mail: mbergou@mbergou.com  
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New York, NY 10011

EMPLOYMENT **Software Engineer**, Google Inc. May 2012 – present

- Technical lead on Google Slides for Android
- Responsibilities include feature development, architecture design, release management, and oversight of other developers

**Research Scientist**, Adobe Systems Inc. September 2010 – February 2012

- Member of Adobe's Advanced Technology Labs
- Responsibilities include researching and developing new technologies from conception and prototyping to transferring mature projects to products

EDUCATION **Columbia University**, New York, NY Aug 2005 – May 2010

- *PhD in Computer Science* (May 2010) and *MS in Computer Science* (Feb 2007)
- Advisor: Prof. Eitan Grinspun
- Thesis: *Discrete Geometric Dynamics and Artistic Control of Curves and Surfaces*

**Carnegie Mellon University**, Pittsburgh, PA Aug 2001 – May 2005

- *BS in Computer Science* and *BS in Physics* with a minor in Mathematics GPA: 4.0

PUBLICATIONS "A discrete geometric approach for simulating the dynamics of thin viscous threads," B. Audoly, N. Clauvelin, P.-T. Brun, M. Bergou, E. Grinspun, M. Wardetzky. *Journal of Computational Physics* 2013.

"Efficient Nonlinear Optimization via Multiscale Gradient Filtering," T. Martin, P. Joshi, M. Bergou, N. Carr. *Computer Graphics Forum* 2013.

"Discrete Viscous Threads," M. Bergou, B. Audoly, E. Vouga, M. Wardetzky, E. Grinspun. *ACM Transactions on Graphics* (SIGGRAPH), 29(4), July 2010, pp. 116:1–116:10.

"Discrete Elastic Rods," M. Bergou, M. Wardetzky, S. Robinson, B. Audoly, and E. Grinspun. *ACM Transactions on Graphics* (SIGGRAPH), 27(3), August 2008, pp. 63:1–63:12.

"TRACKS: Toward Directable Thin Shells," M. Bergou, S. Mathur, M. Wardetzky, and E. Grinspun. *ACM Transactions on Graphics* (SIGGRAPH), 26(3), July 2007, pp. 50:1–50:10.

"Discrete Quadratic Curvature Energies," M. Wardetzky, M. Bergou, D. Harmon, D. Zorin, and E. Grinspun, *Computer Aided Geometric Design*, 24(8-9), 2007, pp. 499–518.

**2010 Most Cited Paper Award** for *Computer Aided Geometric Design*

"Discrete Quadratic Curvature Energies," M. Bergou, M. Wardetzky, D. Harmon, D. Zorin, and E. Grinspun, *Discrete Differential Geometry: An Applied Introduction*, *SIGGRAPH course notes* (2006).

"A Quadratic Bending Model for Inextensible Surfaces," M. Bergou, M. Wardetzky, D. Harmon, D. Zorin, and E. Grinspun. *Symposium on Geometry Processing*, June 2006, pp. 227–230.

PROFESSIONAL EXPERIENCE

## Reviewer

- SIGGRAPH 2007–2013, SIGGRAPH Asia 2009
- Eurographics 2011, 2012
- Transactions on Graphics (TOG) 2011
- Transactions on Vision and Computer Graphics (TVGC) 2009
- Symposium on Computer Animation (SCA) 2006, 2009, 2011
- Symposium on Geometry Processing (SGP) 2006
- Symposium on Interactive 3D Graphics and Games (i3D) 2009
- Medical Image Analysis (MedIA) 2009

**Undergraduate Researcher**, Carnegie Mellon University Summer 2004

- Worked with Prof. Gary Miller on simulation of blood cell flow ([http://www.aladdin.cs.cmu.edu/reu/mini\\_probes/2004/mesh\\_pde.html](http://www.aladdin.cs.cmu.edu/reu/mini_probes/2004/mesh_pde.html))

TEACHING EXPERIENCE	<b>Lecturer</b> , Columbia University	Spring 2009
	<ul style="list-style-type: none"> <li>• Primary lecturer for COMS4167 Physically Based Computer Animation (co-lecturer D. Harmon)</li> <li>• Designed and taught the course, including lectures, assignments, and exams</li> </ul>	
	<b>Guest lecturer</b> , Columbia University	Spring 2006
	<ul style="list-style-type: none"> <li>• COMS3202 Discrete Mathematics</li> </ul>	
	<b>Teaching Assistant</b> , Carnegie Mellon University	Fall 2003 – Spring 2005
	<ul style="list-style-type: none"> <li>• 15-462 Introduction to Computer Graphics</li> <li>• 15-212 Principles of Programming</li> <li>• 15-211 Fundamental Data Structures and Algorithms</li> <li>• Taught recitations, held office hours, and designed projects</li> </ul>	
AWARDS	<b>Intel PhD Fellowship Award</b> , Intel	2009
	<b>Autodesk Research Fellowship</b> , Autodesk	2008
	<b>Presidential Distinguished Fellowship</b> , Columbia University	2005-2009
	<b>Samuel Horelick Scholarship</b> , Carnegie Mellon University	Fall 2004
	<b>Andrew Carnegie Society Scholar</b> , Carnegie Mellon University	Fall 2004
	<b>Boeing Leadership Scholarship</b> , Carnegie Mellon University	Fall 2003
HONORS	<b>Sigma Pi Sigma Honor Society</b> , Carnegie Mellon University	Spring 2005
	<b>Senior Leader Recognition</b> , Carnegie Mellon University	Spring 2005
	<b>Phi Beta Kappa Honor Society</b> , Carnegie Mellon University	Fall 2004
	<b>Phi Kappa Phi Honor Society</b> , Carnegie Mellon University	Fall 2003
	<b>National Society of Collegiate Scholars</b> , Carnegie Mellon University	Spring 2002
	<b>Dean's List</b> , Carnegie Mellon University School of Computer Science	2001-2005
PRESS	“Professor’s work leads to animation advances.” F. Vigeland, Columbia Spectator. <a href="http://www.columbiaspectator.com/2010/09/28/professor-s-work-leads-animation-advances">http://www.columbiaspectator.com/2010/09/28/professor-s-work-leads-animation-advances</a>	
	“Student granted Intel Fellowship for graphics.” T. P. Wood, Columbia Spectator. <a href="http://www.columbiaspectator.com/2009/11/20/student-granted-intel-fellowship-graphics">http://www.columbiaspectator.com/2009/11/20/student-granted-intel-fellowship-graphics</a>	