

Education

- Ph.D., University of North Carolina at Chapel Hill, 2001.
- M.Sc (Engg.), Indian Institute of Science, 1995.
- B.E. (Computer Science and Engg.), Thiagarajar College of Engineering, 1992.

Work Experience

- Associate Professor, July 2007-, Department of Computer Science, UCI.
- Assistant Professor, July 2001- June 2007, Department of Computer Science, UCI.
- Research/Teaching Assistant, 1995-2001, Dept. of Computer Science, UNC.
- Summer Intern, AT&T Research Labs, Summer 1998 and Summer 1999.
- Senior Software Engineer, Tata Elxsi, Bangalore India, Jan-July 1995.

Journal Publications

- J16. *Pablo Diaz-Gutierrez, Jonas Bosch, Renato Pajarola, M. Gopi*
Streaming Surface Sampling Using Gaussian ϵ -nets.
The Visual Computer, 2009.
- J15. *Yan Huang, Jingliang Peng, C.-C Jay Kuo, M. Gopi*
A Generic Scheme for Progressive Point Cloud Coding
IEEE Trans. on Visualization and Computer Graphics, pp 440-453, 14(2), Mar/Apr 2008.
- J14. *Don V. Black, M. Gopi, F. Kuester, F. Wessel, R. Pajarola*
Visualizing Flat Spacetime: Viewing Optical versus Special Relativistic Effects
American Journal of Physics, 75(6), pp 540 – 545, June 2007.
- J13. *Pablo Diaz-Gutierrez, Anusheel Bhushan, M. Gopi, Renato Pajarola*
Single Strips for Fast Interactive Rendering
The Visual Computer, 22(6), pp 372 – 386, June 2006.
- J12. *Pablo Diaz-Gutierrez, M. Gopi*
Quadrilateral and Tetrahedral Mesh Stripification Using 2-Factor Partitioning of the Dual Graph
The Visual Computer, 21(8 – 10), pp 689 – 697, Sep 2005.
- J11. *Pablo Diaz-Gutierrez, M. Gopi, Renato Pajarola*
Hierarchyless Simplification, Stripification and Compression of Triangulated Two-Manifolds
Computer Graphics Forum, 24(3), pp 457–467, Sep 2005.
- J10. *Aditi Majumder, M. Gopi*
Modeling Color Properties of Tiled Displays
Computer Graphics Forum, 24(2), pp 149–163, 2005.
- J9. *M. Gopi, David Eppstein*
Single-Strip Triangulation of Manifolds with Arbitrary Topology
Computer Graphics Forum, 23(3), pp 371–379, 2004.
- J8. *S. Krishnan, D. Manocha, M. Gopi, T. Culver, J. Keyser*
BOOLE: A Boundary Evaluation System for Boolean Combinations of Sculptured Solids
Int. Journal of Comp. Geometry and Applications, 11(1), 105–144, 2001.
- J7. *M. Gopi, S. Krishnan, C. T. Silva*
Surface Reconstruction based on Lower Dimensional Localized Delaunay Triangulation
Computer Graphics Forum, 19(3), pp C467-C478, 2000.
- J6. *M. Gopi, D. Manocha*
Simplifying Spline Models
Comp. Geometry, Theory and Applications, 14, (1-3), 67-90, Nov. 1999.
- J5. *S. Krishnan, M. Gopi, M. Lin, D. Manocha, A. Pattekar*

- Rapid Accurate Contact Determination between Spline Models using ShellTrees
Computer Graphics Forum, 17(3), pp C315-C326, 1998.
- J4. *S.Krishnan, M.Gopi, D.Manocha, M.Mine*
Interactive Boundary Computation of Boolean Combinations of Sculptured Solids
Computer Graphics Forum, 16(3), pp C67-C78,1997.
- J3. *M.Gopi, S.Manohar*
A Unified Architecture for the computation of B-Spline Curves and Surfaces
IEEE Trans. on Parallel and Distributed Systems, 8(12), 1275-1287, 1997.
- J2. *M.Gopi, S.Manohar*
Parallel architecture for the computation of Uniform Rational B-Spline Patches
Journal of Parallel and Distributed Computing, Nov. 1995.
- J1. *M.Gopi, S.Manohar*
A VLSI architecture for the computation of Uniform B-Spline curves
Microprocessing and Microprogramming, EUROMICRO Journal, Nov. 1994.

Conference/Workshop Publications

- C24. *Pablo Diaz-Gutierrez, Jonas Bosch, Renato Pajarola, M. Gopi*
Streaming Surface Sampling Using Gaussian ϵ -nets.
Computer Graphics International, 2009. [Same as J16]
- C23. *Behzad Sajadi, Yan Huang, Pablo Diaz-Gutierrez, Sung-Eui Yoon, M. Gopi*
A Novel Page-Based Data Structure for Interactive Walkthroughs
ACM Symposium on Interactive 3D Graphics and Games, Feb 2009.
- C22. *Pablo Diaz-Gutierrez, David Eppstein, M. Gopi*
Single Triangle Strip and Loop on Manifolds with Boundaries
SIBGRAPI, [33%] October 2006.
- C21. *Masaki Kitago, M. Gopi*
Efficient and Prioritized Point Subsampling for CSRBF Compression
EUROGRAPHICS Symposium on Point Based Graphics, July 2006.
- C20. *Yan Huang, Jingliang Peng, C.-C Jay Kuo, M. Gopi*
Octree-Based Progressive Geometry Coding of Point Clouds
EUROGRAPHICS Symposium on Point Based Graphics, July 2006.
- C19. *Anusheel Bhushan, Oliver Le, Pablo Diaz-Gutierrez, M. Gopi*
Capturing and View-Dependent Rendering of Billboard Models
International Symposium on Visual Computing, 2005.
- C18. *Koel Das, Pablo Diaz-Gutierrez, M. Gopi*
Sketching Free-form Surfaces Using Network of Curves
EUROGRAPHICS Workshop on Sketch Based Interfaces and Modeling, 2005.
- C17. *Pablo Diaz-Gutierrez, M. Gopi*
Quadrilateral and Tetrahedral Mesh Stripification Using 2-Factor Partitioning of the Dual Graph
Pacific Graphics 2005. [13.9%] [Same as J12]
- C16. *Pablo Diaz-Gutierrez, M. Gopi, Renato Pajarola*
Hierarchyless Simplification, Stripification and Compression of Triangulated Two-Manifolds
EUROGRAPHICS 2005 [15%], 2nd Best Paper Award. [Same as J11]
- C15. *Pablo Diaz-Gutierrez, Anusheel Bhushan, M. Gopi, Renato Pajarola*
Constrained Strip Generation and Management for Efficient Interactive 3D Rendering
Computer Graphics Int. Conference, 2005.[32%, Top 5% invited for journal].
- C14. *Pablo Diaz-Gutierrez, Anusheel Bhushan, Renato Pajarola, M. Gopi*
Weighted Strip Generation for Accelerated Rendering
ACM SIGGRAPH Sym. on Interactive 3D Graphics and Games 2005. [Poster].
- C13. *Gautam Chaudhary, Koel Das, M. Gopi*

- Curvature Minimizing Depth Interpolation for Intuitive and Interactive Space Curve Sketching
Computer Graphics International Conference, 2005. [Poster]
- C12. **M. Gopi**
Controllable Single-Strip Generation for Triangulated Surfaces
Pacific Graphics, pp 61–69, 2004. [25%]
- C11. **M. Gopi, David Eppstein**
Single-Strip Triangulation of Manifolds with Arbitrary Topology
EUROGRAPHICS 2004 [18%], **2nd Best Paper Award**. [Same as J9]
- C10. **O. Sen, C. Chemudugunta, M. Gopi**
Silhouette-Opaque Transparency Rendering
IASTED Conf. on Computer Graphics and Imaging, 2003, pp 153–158.
- C9. **M. Gopi, S. Krishnan**
Fast and Efficient Projection Based Approach for Surface Reconstruction
Brazilian Sym. on Computer Graphics and Image Processing, SIBGRAPI 2002.
- C8. **Aditi Majumder, M. Gopi**
Hardware Accelerated Real Time Charcoal Rendering
SIGGRAPH/EUROGRAPHICS Non-Photorealistic Animation and Rendering, 2002, pp 59–66.
- C7. **M. Gopi, S. Krishnan, C. T. Silva**
Surface Reconstruction based on Lower Dimensional Localized Delaunay Triangulation
EUROGRAPHICS 2000 [37%], [Same as J7]
- C6. **Aditi Majumder, M. Gopi, B. Seales, H. Fuchs**
Geometric Stitching for Real-Time Panoramic Image Generation Using Texture Maps
ACM Multimedia '99, pp 169-178. [19%]
- C5. **L.Nyland, D.McAllister, V.Popescu, C.McCue, A.Lastra, P.Rademacher, M.Oliveira, G.Bishop, M.Gopi, M.Cutts, H.Fuchs**
The Impact of Dense Range Data on Computer Graphics
Proc. of Multi-View Modeling and Analysis Workshop(Part of CVPR), 1999.
- C4. **S. Krishnan, M. Gopi, M. Lin, D. Manocha, A. Pattekar**
Rapid Accurate Contact Determination between Spline Models using ShellTrees
EUROGRAPHICS 1998. [Same as J5]
- C3. **S.Krishnan, M.Gopi, D.Manocha, M.Mine**
Interactive Boundary Computation of Boolean Combinations of Sculptured Solids
EUROGRAPHICS 1997 [33%]. [Same as J4]
- C2. **M. Gopi, D. Manocha**
A Unified Approach for Simplifying Polygonal and Spline Models
IEEE Visualization 1998, pp 271-278.
- C1. **M.Gopi, S.Manohar**
VLSI architecture for the computation of NURBS patches
Proc. of International Conf. on VLSI Design, New Delhi, India, Jan 1995.

Books Edited

- B1. **G. Bebis, R. Boyle, B. Parvin, D. Koracin, P. Remagnino, A. V. Nefian, M. Gopi, V. Pascucci, J. Zara, J. Molineros, H. Theisel, T. Malzbender:**
Advances in Visual Computing, Second International Symposium.
Lecture Notes in Computer Science 4291(Part I) and 4292 (Part II)
Springer 2006, ISBN 3-540-48628-3.

Thesis/Dissertations and Other Publications

- D2. **M. Gopi**
Theory and Practice of Sampling and Reconstruction of Manifolds with Boundaries
Ph.D. Dissertation, Department of Computer Science, University of North Carolina at Chapel Hill, 2001.

- D1. **M. Gopi**
Special Purpose Architectures for B-Splines.
M.S. Thesis, Supercomputer Education and Research Center, Indian Institute of Science, Bangalore, 1994.
- T2. **Pablo Diaz-Gutierrez, M. Gopi**
Gauss Sphere Sampling based Surface Approximation
UCI-ICS Technical Report 07-08, 2007.
- T1. **M. Gopi**
On Sampling and Reconstructing Surfaces with Boundaries
Canadian Conference on Computational Geometry, 2002.

Video Proceedings

- V1. **David Eppstein, M. Gopi,**
Single-Strip Triangulation of Manifolds with Arbitrary Topology
ACM Symposium of Computational Geometry, 2004. Video Proceedings.

Teaching/Research Awards

- A1. **Second Best Paper Award**, EUROGRAPHICS, Dublin, Ireland, 2005.
A2. **Second Best Paper Award**, EUROGRAPHICS, Grenoble, France, 2004.
A3. **Excellence in Teaching Award**, Instructional Resource Center/DUE, UCI, 2004.
A4. Link Foundation Fellow (1999-2000).
A5. Gold Medalist, Overall academic Performance, Thiagarajar College of Engineering, 1992.

Funding Awards

- PI, NSF "G&V: Compression Techniques for Direct Rendering", 2008-2011: \$325,000.
- PI, NSF "SGER: Modeling Memory Access Patterns of Geometry Processing Algorithms", 2007 : \$63,129.
- Co-PI, NSF "RI: Integrating Illumination, Motion and Shape Models for Video Analysis", 2007-2010: \$396,932.
- Faculty Desktop Computing Initiative, 2005: \$3500.
- Research and Travel Grant, School of ICS, 2004-05: \$1500.
- Undergraduate Research Orientation Program, UCI, 2004-05 (Chris Welch).
- Research and Travel Grant, ICS, 2003: \$3000.
- Research and Travel Grant, ICS, 2002: \$4500.
- Graduate fellowship at Indian Institute of Science (1992-1995)

Masters Research Advisor

- Don Black, Currently a PhD candidate at EECS, UCI.
- Anusheel Bhushan, Currenty at E-Bay.

Graduate Advisor

- Behzad Sajadi, CS, UCI [9/07-present]
- Yan Huang, ICS, UCI. [6/05-present]
- Pablo Diaz-Gutierrez, ICS, UCI. (2003-08) – Graduated Dec 2008.
- Koel Das, EECS, UCI. [06/2004-06/2005]
- Gautam Chaudhary, EECS, UCI [06/2004– 08/2005]
- Kartic Sankar Subr, ICS, UCI. [09/2002- 03/2004]
- Ramaswamy Hariharan, ICS, UCI. [09/2002 09/2003]
- Chaitanya Chemudugunta, ICS, UCI. [09/2002 09/2003]
- Osman Sen, ICS, UCI.[09/2002 06/2003]

Undergraduate Research Advisor

- Tana Quitavo, CSE, UCI.
- Aamir Shah, CS, UCI.
- Danny Mardini, CS, UCI.
- Ryan Barber, CS, UCI.
- Devin Rosen, ICS, UCI.
- Oliver Le, ICS, UCI.
- Ian Byrd, ICS, UCI.
- Frank Chen, ICS, UCI.
- Benjamin Chen, ICS, UCI.
- Barry Hon, ICS, UCI.
- Chris Welch, ICS, UCI.

Ph.D. Committee Member

- Pablo Diaz Gutierrez, Intel.
- Kartic Subr, INRIA-Grenoble, France.
- Koel Das, EECS, UCI, Post-doc, UCSB.
- Haitao Du, EECS, UCI.
- Michael Shafae, ICS, UCI, Asst. Prof., CSU, Fullerton.
- Xiaohong Bao, ICS, UCI.
- Miguel Sainz, EECS, UCI, nVidia, UK.

Ph.D. Topic/Candidacy Committee Member

- So Yamaoka, ICS, UCI. [11/29/06]
- Kartik Chandra Muktinutalapati, EECS, UCI. [11/29/05]
- Yan Huang, ICS, UCI. [8/24/05]
- Mark Phair, EECS, UCI. [6/16/05]
- Mohammad Ali Ghodrat, ICS, UCI. [3/25/05]
- Pablo Diaz-Gutierrez, ICS, UCI. [3/24/05]
- Radha Guha, EECS, UCI. [1/28/05]
- Kiran Ramineni, ICS, UCI. [12/9/04]
- Gautam Chaudhary, EECS, UCI. [12/03/04]
- Koel Das, EECS, UCI. [12/03/04]
- Michael Shafae, ICS, UCI. [9/18/03]
- Xiaohong Bao, ICS, UCI. [9/18/03]
- Haitao Du, EECS, UCI. [9/03]
- Andre Nacul, ICS, UCI. [5/26/04]
- Miguel Sainz, EECS, UCI. [6/13/02]

Conference Committees

- Student Stipend Program Chair, ACM Symposium on Interactive 3D Graphics and Games, 2009.
- Program Committee, 3D Data Processing, Visualization, and Transmission, 2008.
- Program Committee, Eurographics Workshop on Sketch-Based Interfaces and Modeling, 2005, 2006, 2008.
- Program Committee, ACM Sym. on Solid and Physical Modeling, 2007, 2008 2009.
- Program Committee, Pacific Graphics, 2005, 2007.
- Program Committee, SIBGRAP, 2005, 2006, 2007, 2008, 2009.
- Program Committee, SIGGRAPH/Eurographics Sym. on Point Based Graphics, 2007, 2008.
- Program Committee, International Symposium on Visual Computing, 2005, 2006, 2007, 2008, 2009.
- Program Co-Chair, International Symposium on Visual Computing, 2006.

- Program Chair, High Performance Visualization, ASTC Sym. on HPC 2004.
- Session Chair, ASTC Symposium on HPC 2004.
- Session Chair, IASTED Computer Graphics and Imaging, 2003.

Reviewer

- Journal of Machine Vision and Applications.
- IEEE Visualization, IEEE TVCG, Siggraph Asia, Siggraph, Eurographics, Pacific Graphics.
- Sym. Computational Geometry, Sym. Geometry Processing, ACM I3D.
- Sym. Solid and Physical Modeling, SIBGRAPI, Sym. Visual Computing.
- NSF Proposal Review Panel, 2007.
- Proposal Reviewer for the Netherlands Organisation for Scientific Research (NOW).
- American Society of Mechanical Engineers IDETC/CIE 2005.
- Journal of Computer Aided Geometric Design (2005)
- Eurographics Computer Graphics Forum.
- Elsevier Graphical Models.
- Symposium on Theoretical Aspects of Computer Science 2005.
- IEEE Transactions on Computers

Invited Presentations

- Department of Computer Science, UC-Davis, Sept. 2006.
- Department of Computer Science, UNC, Chapel Hill, June 2006.
- Department of Computer Science, SUNY, Stony Brook, June 2006.
- Department of Computer Science, Univ. of Maryland, College Park, Feb 2006.
- Pacific Conf. on Computer Graphics and Applications, Hong Kong, Oct 2005.
- Eurographics, Dublin, Ireland, Sept. 2005.
- Pacific Conf. on Computer Graphics and Applications, Seoul, Oct 2004.
- Eurographics, Grenoble, France, Sept. 2004.
- IASTED Conference on Computer Graphics and Imaging, Honolulu, 2003.
- Canadian Conf. on Computational Geometry, Lethbridge, Canada, 2002.
- CallT2 Layer Leader Meeting, June 2002.
- Department of Information and Computer Science, UC, Irvine, 2001.
- Department of Computer Science, University of Arizona, Tucson, 2001.
- IEEE Visualization, 1998.
- International Conference on VLSI Design, 1995.

University/School/Department Committees and Services

- Senate Sub-committee on Undecided/Undeclared Students, UCI, 2008-10.
- Faculty Chair, Donald Bren School of Information and Computer Sciences, 2008-09.
- Entrepreneurship and Leadership Committee, DBSICS, 2007-08.
- Network Policy Committee, 2005-2006.
- Co-organized (with Chen Li) the ICS Graduate Candidates Day, 2005
- ICS Faculty Panel for Undecided/Undeclared students, 2005.
- Graduate Admissions Committee, 2004-2005.
- CS PhD committee, 2004.
- Graduate Admissions Committee, 2003-2004.
- Co-organized (with Stas) the ICS Graduate Candidates Day, 2004
- Graduate Policy Committee, 2002-2003
- Web committee 2003
- Graduate Admissions Committee, 2001-2002
- Cryptography Faculty Search Committee, 2001-2002
- Co-organized (with Chen Li) the ICS Graduate Candidates Day, 3/21/2002

- Volunteered for ICS Undergraduate Tour presentation 3/23/2002
- Presentation at Fall 2001 ICS 200 graduate class.
- Facilities Committee, Department of Computer Science, UNC (1998-1999).