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## Mashhood Ishaque

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### Professional Preparation

Karachi University, Karachi, Pakistan: Computer Science, B.S. 2002; GPA 3.7.  
George Mason University: Computer Science, M.S. 2006; GPA 4.0.  
Tufts University: Computer Science, Ph.D. Candidate.

### Appointments

Tufts University  
Research Assistant, Computational Geometry Group, 2006-  
Teaching Assistant, Computer Science Department, 2006-  
George Mason University  
Research Assistant, System Architectures Lab, 2004-2005.  
Matrix Systems: Software Engineer, 2000-2003.

### Honors

Outstanding Graduate Student, George Mason University, 2005-2006.  
George Mason University Masters Fellowship, 2004 and 2005.

### Selected Publications

N. M. Benbernou, M. Ishaque, D. L. Souvaine. "Restricted Triangular Range Searching." *Proceeding of the 20th Canadian Conference on Computational Geometry (CCCG 2008)*, to appear.

M. Ishaque, C. D. Tóth. "Relative Convex Hulls in Semi-Dynamic Subdivisions." *Proceeding of the 16th Annual European Symposium on Algorithms (ESA 2008)*, to appear.

N. M. Benbernou, E. D. Demaine, M. L. Demaine, M. Hoffmann, M. Ishaque, D. L. Souvaine, C. D. Tóth. "Disjoint Segments have Convex Partitions with 2-Edge Connected Dual Graphs." *Proceeding of the 19th Canadian Conference on Computational Geometry (CCCG 2007)*, 13-16.

E. D. Demaine, M. L. Demaine, S. P. Fekete, M. Ishaque, E. Rafalin, R. T. Schweller, D. L. Souvaine. "Staged Self-Assembly: Nanomanufacture of Arbitrary Shapes with  $O(1)$  Glues." *Lecture Notes in Computer Science 4848: Proceedings of the 13th International Meeting on DNA Computing (June 2007)*, Springer-Verlag. Invited to special issue of *Journal of Natural Computing*.

M. Ishaque, F. Mansoor, A. K. Zaidi. "An Inference Mechanism for Point-Interval Logic." *Proceeding of the 21st International Florida Artificial Intelligence Research Society Conference (FLAIRS-21)* (2008).

## **Synergistic Activities**

Guest lecturer in Introduction to Computer Science classes in fall 2006, summer 2007, and fall 2007. Talked about “Data Structures for Computational Geometry” and “Algorithms for Self-Assembly” to give introductory students exposure to current research of the “Tufts Computational Geometry” group.

Taught a mini-course on computational geometry in summer 2006 at Karachi University in Pakistan. The course was attended by around 12 undergraduate students (both males and females). Also talked about opportunities for higher studies in the United States of America.

Developed a software to analyze computer science curriculum for compliance with ACM Computing Curricula, Steelman draft, 2001. The software won “ACM Excellence Award for Community Service, 2002”.

## **Collaborators**

**PhD Thesis Advisor:** Diane L. Souvaine (Tufts University)

**MS Thesis Advisor:** Alexander H. Levis (George Mason University)

**Other co-authors/collaborators:** Nadia M. Benbernou (MIT), Erik Demaine (MIT), Martin Demaine (MIT), Sándor P. Fekete (Technische Universitt Braunschweig), Michael Hoffmann (ETH Zurich), George Filiotis (Tufts), Eddie Goldberg (Tufts), Alexandra Lauric(Tufts), Faisal Mansoor (George Mason University), Eynat Rafalin (Google), Robert Schweller (University of Texas, Pan American), Csaba D. Tóth (University of Calgary), and Abbas K. Zaidi (George Mason University)