Rahul Garg

Department of Computer Science and Engineering

University of Washington

Box 352350, Seattle, WA 98195

Ph:(206) 708 5975

http://www.cs.washington.edu/homes/rahul

email: rahul@cs.washington.edu

Education

- **University of Washington**, Seattle, WA   **2007 - 2012 (Expected)**
  Ph.D. candidate in Computer Science and Engineering
  Advisor: Prof. Steven M. Seitz
- **Indian Institute of Technology (IIT) Delhi**, India   **2003 - 2007**
  Bachelor of Technology in Computer Science and Engineering
  (GPA: 9.91/10.0, President's Gold Medal)

Publications

- I. Kemelmacher-Shlizerman, E. Shechtman, R. Garg and S.M. Seitz. **Exploring Photobios**, *ACM Transactions on Graphics (Proceedings of SIGGRAPH 2011)*
- R. Garg, D. Ramanan, S.M. Seitz and N. Snavely. **Where's Waldo: Matching People in Images of Crowds**, *In Proceedings of IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Colorado Springs, June 2011*
- R. Garg, H. Du, S.M. Seitz and N. Snavely. **The Dimensionality of Scene Appearance**, *In Proceedings of the IEEE International Conference on Computer Vision (ICCV), Kyoto, Japan, October 2009*
- N. Snavely, R. Garg, S.M. Seitz and R. Szeliski. **Finding Paths through the World's Photos**, *ACM Transactions on Graphics (Proceedings of SIGGRAPH 2008)*
- M. Varma and R. Garg. **Locally Invariant Fractal Features for Statistical Texture Classification**, *In Proceedings of the IEEE International Conference on Computer Vision (ICCV), Rio De Janeiro, Brazil, October 2007*

Experience

- **Research Assistant** at **University of Washington**   **Fall 2007 - Present**

  Ongoing work on developing techniques to aid visualization of scene from a collection of overlapping photos.

- **Software Engineering Intern** at **Google Seattle**   **Summer 2011**
  Mentor: Prof. Steven M. Seitz

  Worked on an Android app that allows the user to take overlapping photos of a scene and browse them in a panorama-like viewer.

- **Software Engineering Intern** at **Google Seattle**   **Spring-Summer 2010**
  Mentor: Prof. Steven M. Seitz

Implemented the Face Movie feature included in personal photo organizer software Picasa 3.8.

- **Research Intern** at **Microsoft Research Redmond**   **Summer 2008**
  Mentor: Dr. Richard Szeliski

  Worked on the problem of detecting and matching features across images of man made scenes.

- **Research Engineer** at **B-Core Software Pvt. Ltd., New Delhi**   **Summer 2007**

  Worked on an application for mobile platforms to decode color codes from an image of a colored sequence (analogous to bar codes)

- **Research Intern** at **Microsoft Research India**   **Summer 2006**
  Guide: Dr. Manik Varma

  Worked on developing locally invariant fractal features which allow for statistical analysis and classification of textures

- **Summer Internship** at **IIT, Delhi**   **Summer 2005**
  Guide: Prof. Subhashis Banerjee

  Worked on detecting vehicles in a video stream that included study of Scale Invariant Feature Transform (SIFT), Principal Component Analysis (PCA) and Generalized Hough Transform. Recipient of prestigious **SURA** (Summer Undergraduate Research Award), 2005 awarded by Industrial Research and Development Unit (IRD), IIT Delhi

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Patents

- Face and Expression Aligned Movies, S.M. Seitz, R. Garg, I. Kemelmacher, US Patent application 61/371,934, pending, filed on Aug 9 2010

Teaching Experience

- TA for CSE455 (Undergraduate Computer Vision course) during Winter 2010 at University of Washington.
- Tutored undergraduate students at University of Washington.

Talks

- **Exploring Photobios** (with Ira Kemelmacher-Shlizerman)
  SIGGRAPH 2011, Vancouver, BC, August 2011.
- **Finding Paths through the World's Photos** (with Noah Snavely)
  SIGGRAPH 2008, Los Angeles, CA, August 2008.
- **Beyond Photo Tourism: Guided Navigation of Internet Photo Collections**
  Indian Institute of Technology (IIT) Delhi, India, September 2008.

Academic Achievements

- Recipient of **NVIDIA Fellowship** for the year 2009-2010.
- Recipient of the **Weil Family Endowed Fellowship** for the year 2007-2008 at the University of Washington
- Recipient of the **Clairmont L. Egtvedt Fellowship** awarded by College of Engineering, University of Washington, 2007-2008
- Awarded the **President of India Gold Medal** for securing the highest cumulative GPA among all outgoing B.Tech. students across all disciplines in 2007 batch, IIT Delhi
- Secured All India Rank **7** among 172,000 candidates in IIT-Joint Entrance Examination 2003
- Secured Rank **1** in Common Engineering Test (Delhi) 2003, Rank **18** in All India Engineering Entrance Examination 2003
- Selected for NTSE (National Talent Search Examination) Scholarship awarded by the Govt. of India
- Selected for Training Camp, Indian National Physics Olympiad 2003
- Awards in many mathematics contests - RMO (Regional Mathematics Olympiad), SMO (Senior Mathematics Olympiad), etc.

Programming Competitions

- Among top 12 finalists in TopCoder Open 2008 Marathon competition, an international event hosted by www.topcoder.com.
- Among top 500 onsite finalists in Google Code Jam 2008, an international programming contest organized by Google.
- Among top 50 finalists in Google Code Jam India, 2006 - Programming Contest organized by Google which attracted over 14,000 participants from South East Asia.
- Problem setter for International Online Programming Contest organized during Tryst 2007, the technical festival of IIT Delhi.
- Represented IIT Delhi in ACM International Collegiate Programming Contest 2007.
- Regular member of www.topcoder.com - a website hosting global programming competitions, ranked among top 5 in India during undergrad.