

Ram Krishan Kumar

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Education

- University of North Carolina** at Chapel Hill 2007-Present
Ph.D., Computer Science, M.S expected **Dec 2009**
Advisor: Jan-Michael Frahm and Marc Pollefeys
Research Area: Computer Vision
- Indian Institute of Technology Madras**, India 2003-07
Bachelor of Technology in Computer Science and Engineering
Advisor: Anurag Mittal, Major GPA: **8.45/10**

Work Experience

- Summer Intern, Disney Research Pittsburgh** May-Aug 2009
Advisor: Raffay Hamid, Irfan Essa and Jessica Hodgins
- Sports event analysis and data fusion from multiple cameras
- Summer Intern, Google, Mountain View, CA** May-Aug 2008
Advisor: Tomas Izo
- YouTube video classification according to motion content
- Research Assistant**, Computer Science Dept., UNC Chapel Hill Aug 2007-Present
- Active and static camera network calibration
 - Background-foreground differentiation
- Computer Vision Lab.**, IIT Madras Sept 2006-May 2007
- Statistics-based change detection for linearly varying data
- Intern, IBM Extreme Blue Internship Program**, Bangalore Summer 2006
- Improving the Linux bootup time for Kernel Developers
- Teaching Assistant**, Computer Science Dept., IIT Madras Fall 2005
- Foundations of Computational Engineering

Publications

- **Ram krishan Kumar**, Adrian Ilie, Jan-Michael Frahm and Marc Pollefeys, "Simple Calibration of Non-overlapping Cameras with a planar mirror", *Oral Presentation, IEEE Computer Vision and Pattern Recognition (CVPR) 2008, Anchorage, Alaska.*
- Anurag Mittal, **Ram krishan Kumar** and Nikos Paragios, "Generalized Change Detection using Statistical Analysis", *IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)*, *accepted with minor changes.*
- **Ram krishan kumar**, Pushkar Raj Pande, Srinivasan Vaidyanthan and Deepankar Sharma, "Reducing SCSI Probe Time Using Snapshot Replay with Kexec", Linux Technology Center, IBM, 2006

Skills

- C, C++, Matlab, UNIX Programming, Yacc/Bison, Lex, HTML, C++ Vision Libraries
- UNIX, Linux, Microsoft Windows
- ObjectVideoVirtualVideoToolkit, PGRFlyCapture APIs

Academic Honors

- Secured 15th rank in state-level engineering entrance exam.
- Stood 14th in Intermediate Exams (+2) conducted by BIEC.
- All India Rank of 208 in IIT JEE 2003 (out of approx. 200,000 students).
- Certificate of Merit, 2003, IIT Madras.
- 0.1% scholarship in Mathematics, Secondary School Exams, CBSE.

Design Projects

- Detecting Cars and Pedestrians in 3D
- Creating Visual Vocabularies
- A compiler for subset of Pascal Language, (Team of 4)
- Sports Club Database using SQL and JDBC, (Team of 3)
- E-voting Software, *Software Engg.* (Team of 4)
- Implemented various operating system features in GeekOs
- Statement Explorer of C-style language
- Linear Predictive Analysis of Speech Signals