

PRATIM GHOSH

Education

- Ph.D. in Electrical and Computer Engineering
University of California, Santa Barbara, CA USA Fall 2007 - Present
- Supervisor: Prof. B.S. Manjunath
 - GPA: 4.00/4.00
- M.S. in Electrical Engineering
Indian Institute of Science, Bangalore, India Fall 2004 - Spring 2006
- Supervisor: Prof. K.R. Ramakrishnan
 - Thesis title: "A Compact Image Signature for RTS Invariant Image Retrieval"
 - GPA: 6.80/8.00 (with Distinction)
- B.S. in Electrical Engineering
Jadavpur University, Kolkata, India Fall 2000 - Spring 2004
- GPA: 3.90/4.00 (with Honors)

Languages

English, Hindi, Bengali: Advanced level

Work Experience

- Research Intern 2009/07-2009/09
Janelia Farm Research Campus, VA USA
- Graduate Student Researcher 2007/09 - Present
UC Santa Barbara, CA USA
- Research Assistant 2006/09 - 2007/04
UC Santa Barbara, CA USA
- Short Term Visiting Scholar 2005/12-2006/03
UC Santa Barbara, CA USA

Relevant Coursework

- Pattern Recognition
- Data Structures & Algorithms
- Multimedia Systems
- Linear & Non Linear Optimization
- Stochastic modeling and applications
- Real Time Systems
- Biometrics
- Digital Image Processing
- Digital Signal Processing
- Speech Information Processing
- Neural Networks
- Embedded System Design 1
- Dynamics of Linear Systems
- Matrix Theory
- PDE Finite Difference

Journal Publications/ Book Chapters

- **Pratim Ghosh**, Luca Bertelli, B. Sumengen, B.S. Manjunath, "A Non-Conservative Flow field for Robust Variational Image Segmentation", IEEE Transactions on Image Processing (TIP'10), Vol. 19, No. 2, pp. 478-490, February 2010
- Anindya Sarkar, Vishwakarma Singh, **Pratim Ghosh**, B. S. Manjunath, Ambuj Singh, "Efficient and Robust Detection of Duplicate Videos in a Large Database", IEEE Transactions on Circuits and Systems for Video Technology (TCSVT'10), January 2010
- **Pratim Ghosh**, E. Drelie Gelasca, K.R. Ramakrisnan and B.S. Manjunath, "Duplicate Image Detection in Large Scale Databases", Advances in Intelligent Information Processing Tools and Applications, World Scientific, October 2007.

Conference Publications

- D. Delibaltov, **Pratim Ghosh**, M. Veeman, W. Smith, B.S. Manjunath, "An Automatic Feature Based Model for Cell Segmentation from Confocal Microscopy Volumes", IEEE Int'l Symposium of Biomedical Imaging (ISBI'11), Chicago, IL, 2011
- M.E. Sargin, **Pratim Ghosh**, B. S. Manjunath and K. Rose, "Object Tracking with Ratio Cycles Using Shape and Appearance Cues", IEEE Int'l Conf. on Pattern Recognition (ICPR'10), Istanbul, Turkey, August 2010
- **Pratim Ghosh**, M.E. Sargin, B.S. Manjunath, "Generalized Simultaneous Registration and Segmentation", IEEE Int. Conf. on Computer Vision and Pattern Recognition (CVPR'10), San Francisco, CA, USA, June 2010
- **Pratim Ghosh**, M.E. Sargin, B.S. Manjunath, "Robust Dynamical Model for Simultaneous Registration and Segmentation in a Variational Framework: A Bayesian Approach", IEEE Int. Conf. on Computer Vision (ICCV'09), Kyoto, Japan, September 2009
- Luca Bertelli, **Pratim Ghosh**, B.S. Manjunath, and Frederic Gibou, "Reference Based Probabilistic Segmentation as non-rigid registration using Thin Plate Splines", IEEE Int. Conf. on Image Processing (ICIP'08), San Diego, CA, 2008
- Anindya Sarkar, **Pratim Ghosh**, Emily Moxley and B. S. Manjunath, "Video Fingerprinting: Features for Duplicate and Similar Video Detection and Query based Video Retrieval", Proc. SPIE Multimedia Content Access: Algorithms and Systems II, San Jose, CA 2008
- Nhat Vu, **Pratim Ghosh**, and B.S. Manjunath, "Retina Layer Segmentation and Spatial Alignment of Antibody Expression Levels", IEEE Int. Conf. Image Processing (ICIP'07), San Antonio TX, 2007
- **Pratim Ghosh**, B.S. Manjunath and K.R. Ramakrishnan, "A Compact Image Signature for RTS Invariant Image Retrieval", IEE Int. Conf. Visual Information Engineering (VIE'06), Sept 2006
- Elisa Drelie Gelasca, Joriz De Guzman, Steffen Gauglitz, **Pratim Ghosh**, JieJun Xu, Amir M. Rahimi, Emily Moxley, Zhiqiang Bi and B.S. Manjunath, "CORTINA: Searching a 10 Million + Image Databases", Technical Report, VRL, ECE, University of California, Santa Barbara, Sep. 2007

Computer Skills

- Programming languages: C/C++, Matlab

Honors

- Doctoral Student Travel Grant, Academic Senate, University of California, Santa Barbara (2009)
- Bio-Image Fellowship, Center for Bio-Image Informatics, University of California, Santa Barbara (2007)
- General Electric Scholarship, Indian Institute of Science, Bangalore, India (2005)
- All India 9th Rank, in Electrical Engineering GATE 2004 with 99.95 percentile
- Public Works Dept. (Govt. Organization) Scholarship at the under graduate level for academic excellence, Jadavpur University, Kolkata (2003)

References

- Prof. B.S. Manjunath, University of California, Santa Barbara, CA USA (manj@ece.ucsb.edu)
- Dr. Dmitri Chklovskii, Janelia Farm Research Campus, VA, USA (chklovskiid@janelia.hhmi.org)
- Prof. K.R. Ramakrishnan, Indian Institute of Science, Bangalore, India (krr@ee.iisc.ernet.in)
- Prof. P.S. Sastry, Indian Institute of Science, Bangalore, India (sastry@ee.iisc.ernet.in)