

Pratim Ghosh

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Career goal To become a good researcher and make an unbounded exploration and meaningful contribution to the field of Computer Vision and Pattern Recognition.

Education

- 09/07-present **PhD** student, Electrical and Computer Engineering.
Research Advisor: Professor B.S. Manjunath.
University of California, Santa Barbara, CA-93106.
- 08/04-06/06 **M.S. Degree with Distinction (GPA 6.8/8)** in System Science and Automation
Indian Institute of Science, Department of Electrical Engineering, Bangalore, India
- Dissertation title: A Compact Image Signature for RTS Invariant Image Retrieval
- 08/00-06/04 **B.S. Degree with Honors (GPA 3.9/4)** in Electrical Engineering
Jadavpur University, Department of Electrical Engineering, Kolkata, India
- 06/97-04/99 **Higher Secondary (10+2) (82.3%)** West Bengal Council of Higher Secondary
Education, Kolkata, India.
- 06/96-04/97 **Secondary (X) (89.9%)** West Bengal Board of Secondary Education, Kolkata, India.

Research Experience

- 08/06-06/07 **Research Scholar**
The University of California Santa Barbara, Department of Electrical and Computer
Engineering, CA-93106
Research Advisor: Professor B.S. Manjunath.
- Developing a general Content Based Image Retrieval System which can perform real time retrieval on 10 Million images.
 - Developing algorithms for automatic or semi-automatic analysis of Bio-Molecular images.

12/05-03/06

Visiting Scholar

The University of California Santa Barbara, Department of Electrical and Computer Engineering, CA-93106

Research Advisor: Professor B.S. Manjunath and Professor K.R. Ramakrishnan.

- A compact signature (32 bits) for Rotation, Translation and Scale invariant image retrieval.
- Automatic Text detection in a Video (Captioned Text).
- Developing a Finger Print Recognition System.

Teaching Experience

Winter 2008

Teaching Assistant

The University of California Santa Barbara, Department of Electrical and Computer Engineering, CA-93106

Digital Image Processing – ECE 178

- Led Discussion Sessions and Office Hours, Graded Home-works and Finals.

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

Computer Skills

Language: C, Matlab, MySql.

Operating System: Linux, Windows.

Awards and Recognitions

- **General Electric Scholarship**, Indian Institute of Science, Bangalore, India, June 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, Sept. 2003.

Publications

- **Pratim Ghosh**, Luca Bertelli, B. Sumengen, B.S. Manjunath, “A Non-Conservative Flow field for Robust Variational Image Segmentation”, submitted to IEEE Transaction on Image Processing, Nov 2008.
- **Pratim Ghosh**, B.S. Manjunath and K.R. Ramakrishnan, “A Compact Image Signature for RTS Invariant Image Retrieval”, IEE Intn’l Conf. Visual Information Engineering, Sept 2006.
- **Pratim Ghosh**, Elisa Drelie Gelasca and B.S. Manjunath, “Duplicate Image Detection in Large Scale Databases”, Book Chapter: Advances in Intelligent Information Processing – Tools and Applications, World Scientific, 2007.
- Luca Bertelli, **Pratim Ghosh**, B.S. Manjunath, and Frederic Gibou, “Reference Based Probabilistic Segmentation as non-rigid registration using Thin Plate Splines”, IEEE Intn’l Conf. Image Processing, 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 Intn’l Conf. Image Processing, San Antonio TX, 2007.
- 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”, submitted to Intn’l Conf. Very Large Data Bases, 2007.

Special interests

- Volunteered for the event “Ongoing fight against Cancer” organized by **The American Cancer Society Relay For Life® of UCSB, May 2007.**

References

Dr. B.S. Manjunath, Professor, Department of Electrical & Computer Engineering, The University of California Santa Barbara, CA 93106. Phone: (805)893-5682, E-mail: mani@ece.ucsb.edu

Dr. K.R. Ramakrishnan, Professor, Department of Electrical Engineering, Indian Institute of Science, Bangalore-560012. Phone: (080)2293-2934, E-mail: krr@ee.iisc.ernet.in

Dr. P.S. Sastry, Professor, Department of Electrical Engineering, Indian Institute of Science, Bangalore-560012. Phone: (080)2293-2934, E-mail: sastry@ee.iisc.ernet.in