

Rahul Krishna

CONTACT INFORMATION

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OBJECTIVE

Summer Internship where I could apply Machine Learning and/or Computer Vision techniques.

RESEARCH INTERESTS

Machine Learning, Computer Vision, Non-Parametric Bayesian methods, Kernel methods

EDUCATION

University of Rochester, Rochester, NY, USA

Ph.D. Candidate, Computer Science (expected graduation: June 2011)

University at Buffalo, The State University of New York, Buffalo, NY, USA

M.S., Computer Science and Engineering, September, 2006

GPA - 3.96/4.00

Visverwaraiah Technological University, Belgaum, India

B.E., Computer Science and Engineering, June 2004

First Class with Distinction

ACADEMIC EXPERIENCE

University of Rochester, Rochester, NY, USA

Graduate Research Assistant

September 2006 - present

Influence of Spatial Frequency on Face Recognition: We are performing some experiments to study the influence of low and high spatial frequency components in images of faces on face recognition. Human subjects are asked to take part in experiments that require them to make judgements regarding similarity of faces. These data are used to learn a distance metric between faces, and this metric is then analyzed to verify hypotheses concerning the role of spatial frequency in face recognition. This is work with Professor Robert Jacobs.

University at Buffalo, Buffalo, NY, USA

Research Assistant

May - August, 2006

Infinite Switching State Space Model: Worked on building a non-parametric Bayesian model for time series data that segments data into regimes having approximately linear dynamics within each regime and learns the parameters of each of these linear regimes. We used the theory of the Dirichlet Process to formulate a non-parametric prior over the number of regimes that are present in the given data. This is work with Professor Matthew Beal.

Masters Project

Shape and Behavior models for Motion Segmentation: Motion segmentation is typically thought of as a low or mid-level vision task. We worked on trying to formulate the problem of motion segmentation as inference and worked towards studying the effects of high-level shape and behavior priors on the performance of motion segmentation. This is work with Professor Peter Scott.

Teaching Assistant

September 2005 - May 2006

Teaching Assistant for a sophomore level C++ Programming course for Engineering Majors. Duties included grading exams and homeworks, holding office hours and leading computer lab exercises.

Invited Presentation

February 2006

Invited to teach a class on Obstacle Avoidance and Visual Servoing in the class Animate Vision Principles taught by Professor Peter Scott.

Relevant Masters course projects

September 2004 - May 2006

- Latent Variable Models for Dimensionality Reduction and Clustering of Handwritten Digits
- Visual Servoing to the central path in a corridor by a mobile robot using information from Optical Flow
- Part-of-Speech Tagging using Hidden Markov Models

Relevant Masters Coursework

September 2004 - May 2006

Machine Learning, Animate Vision Principles, Advanced Topics in Machine Learning, Current Problems in Computer Vision, Theory of Computation, Analysis and Design of Algorithms

Visveswaraiah Technological University, Belgaum, India

Undergraduate Project

January 2004-June 2004

A Wavelet based reversible Watermarking algorithm and a study of its Applicability in JPIP and E-Prescription systems. This project was done under the supervision of Dr. B. S. Adiga at Philips, India.

COMPUTER SKILLS **Languages:** MATLAB, C, C++, Lisp, Java
Operating Systems: Windows, Unix, Linux, Mac OS X

PERSONAL
INFOMATION **Date of Birth:** April 4, 1982
Citizenship: Indian
Visa Status: F-1

REFERENCES Will be furnished upon request.