

Vishnu Naresh Boddeti

CONTACT INFORMATION	Electrical and Computer Engineering Carnegie Mellon University Pittsburgh, PA 15213	+1 412 897 8467 naresh@cmu.edu www.ece.cmu.edu/~vboddeti
OBJECTIVE	To obtain an internship position for Summer 2009 in the areas of Computer Vision, Image Processing and Machine Learning.	
RESEARCH INTERESTS	Broadly interested in Image Processing and Computer Vision and application of statistical learning methods in these disciplines.	
EDUCATION	Carnegie Mellon University , Pittsburgh, USA Ph.D, Electrical and Computer Engineering (GPA: 3.95/4) <ul style="list-style-type: none">• Advisor: Prof. Vijayakumar Bhagavatula Indian Institute of Technology , Madras, India BTech, Electrical Engineering (GPA: 8.9/10) <ul style="list-style-type: none">• Advisor: Prof. A N Rajagopalan	<i>August 2007-Present</i> <i>August 2003 - July 2007</i>
HONOURS AND AWARDS	<ul style="list-style-type: none">• Dean's Fellowship, Carnegie Mellon University, 2007-Present• Merit Scholarship, Indian Institute of Technology, Madras, 2003-2007• Pratibha Scholarship for Outstanding Academic Achievement, Government of Andhra Pradesh, India, 2000-2002	
PUBLICATIONS	<p>Vishnu Naresh Boddeti and B.V.K. Vijaya Kumar. Extended Depth of Field Iris Recognition with Correlation Filters. In <i>Biometrics: Theory, Applications and Systems (BTAS'08)</i>, Washington DC, USA, September 2008.</p> <p>Vishnu Naresh Boddeti, Fei Su and B.V.K. Vijaya Kumar. A Biometric Key-Binding and Template Protection Framework using Correlation Filters. In <i>International Conference on Biometrics</i>, Alghero, Italy, June 2009. <i>Accepted</i></p> <p>Vishnu Naresh Boddeti and B.V.K Vijaya Kumar. Performance Evaluation of Wavefront Coding for Iris Recognition. In <i>IEEE Transactions on Systems, Man, and Cybernetics - Part A</i>, <i>Submitted</i></p>	
PROJECTS	Carnegie Mellon University , Pittsburgh, USA(August 2007 - Present) <ul style="list-style-type: none">• Extended Depth of Field Iris Recognition with Correlation Filters and Wavefront Coding achieving a depth of field increase by a factor of upto 4.• Biometric Template Protection and Key Binding. The goal is to combine biometric recognition, biometric template protection and key binding into one framework using Correlation Filters.• Object Classification with Spatial Pyramid Matching and Spectral Analysis. Here we combine spatial domain features (SIFT) with spectral analysis for scene and object classification using SVMs with a spatial pyramid match kernel.• Unsupervised Object Discovery in large databases using topic discovery models from statistical text literature. Looked into ways in which segmentation can be used to help discover more meaning topics. Indian Institute of Technology Madras , Chennai, India(August-May, 2007) <ul style="list-style-type: none">• Learning based Super-Resolution of face videos using a 3-D Markov Random Field that encodes the spatial-temporal consistencies and the image formation and deradation process.• Modelling and analysis of a practical reverb model. Also investigated the effects of common audio post processing effects when applied to human voice and music.• Designed a power electronics based controller for a prototype experiment to measure the frequency of oceanic waves. The waves were generated artificially in the laboratory.	

WORK EXPERIENCE	Ittiam Systems Pvt. Ltd , Bangalore, India (May-July, 2006)	
	Investigated many image denoising algorithms on both still images and videos with main emphasis on wavelet based Shrinkage denoising methods.	
COMPUTER SKILLS	<ul style="list-style-type: none"> • Programming: Matlab, C/C++, Scilab. • Publishing: \LaTeX 2ϵ • Platforms: Various GNU/Linux Distributions, Microsoft Windows, Mac OS X. 	
COURSEWORK	Computer Vision Geometry Based Methods in Vision Machine Learning Intermediate Statistics Pattern Recognition Theory	Error Control Coding Applied Stochastic Processes Wavelets and Multiresolution Techniques Digital Signal Processing Advanced Digital Signal Processing
TEACHING EXPERIENCE	Teaching Assitant - Digital Signal Processing.	<i>Spring 2009</i>
	Responsibilities include conducting recitations, writing problem solutions and grading exams.	
ACTIVITIES	<ul style="list-style-type: none"> • Organised a Multimedia Workshop as part of Shaastra,2006 (Annual Technical Festival IITM). I have implemented and demonstrated a real time Face Recognition System in the workshop. • Took part in the Save Oil Programme conducted by Petroleum Conservation Research Association, India (PCRA) organising workshops across the district. • Has been a National Social Service volunteer and participated in teaching programmes under the Sarva Sikshya Abyan (SSA). This work was part of the Prime Minister's Education for All programme. 	
REFEREES	<i>Available on request.</i>	