

Aruni RoyChowdhury

CONTACT INFORMATION	140 Governors Drive Computer Science Building University of Massachusetts Amherst, MA 01003 USA.	(413)345-3903 arunirc@cs.umass.edu people.cs.umass.edu/arunirc
RESEARCH INTERESTS	Computer Vision: face recognition, fine-grained recognition, deep learning.	
EDUCATION	University of Massachusetts, Amherst <ul style="list-style-type: none">– PhD in Computer Science (<i>2013–current</i>). Advised by: Erik Learned-Miller and Subhransu Maji.– MS in Computer Science (<i>2016</i>). West Bengal University of Technology, India <ul style="list-style-type: none">– B.Tech from Heritage Institute of Technology, Kolkata (<i>2009–2013</i>).	
PROJECTS & EXPERIENCE	University of Massachusetts, Amherst <ul style="list-style-type: none">– <i>Research Assistant (Sep. 2014 – current)</i>: Face recognition project under IARPA’s Janus program. Supervised by: Erik Learned-Miller.– <i>Synthesis Project (Sep. 2015 – May 2016)</i>: Distinguishing weather phenomena from bird migration patterns in radar imagery. Supervised by: Daniel Sheldon, Erik Learned-Miller and Subhransu Maji. The Mathworks, Inc. <ul style="list-style-type: none">– <i>Internship (May.–Aug., 2017)</i>: Object detection using deep learning. Mentor: Birju Patel.– <i>Internship (Jun.–Aug., 2014)</i>: Face recognition in MATLAB. Mentor: Dima Lisin. Indian Statistical Institute, Kolkata <ul style="list-style-type: none">– <i>Internship (Dec., 2011 – Jul., 2013)</i>: Scene text detection and online handwriting recognition. Mentors: Ujjwal Bhattacharya and Swapan K Parui. Variable Energy Cyclotron Center, Dept. of Atomic Energy (India) <ul style="list-style-type: none">– <i>Internship (Jun.–Jul., 2012)</i>: Analysis of event data using Map-Reduce. Mentor: Amitava Ray	
PUBLICATIONS	<ol style="list-style-type: none">1. Aruni RoyChowdhury, Prakhar Sharma and Erik Learned-Miller. <i>Reducing Duplicate Filters in Deep Neural Networks</i>. NIPS workshop on Deep Learning: Bridging Theory and Practice (DLTP), 2017.2. Tsung Yu Lin, Aruni RoyChowdhury, Subhransu Maji. <i>Bilinear CNNs for Fine-grained Visual Recognition</i>. IEEE Transactions of Pattern Recognition and Machine Intelligence (PAMI), 2017.3. Kevin Winner, Garrett Bernstein, Andrew Farnsworth, Aruni RoyChowdhury and Dan Sheldon. <i>Radar Analysis of Bird Migration</i>. International Conference on Computational Sustainability (Comp-Sust), 2016.	

4. Aruni RoyChowdhury, Daniel Sheldon, Subhansu Maji and Erik Learned-Miller. ***Distinguishing Weather Phenomena from Bird Migration Patterns in Radar Imagery***. CVPR workshop on Perception Beyond the Visual Spectrum (PBVS), 2016.
5. Aruni RoyChowdhury, Tsung-Yu Lin, Subhansu Maji and Erik Learned-Miller. ***One-to-many face recognition with bilinear CNNs***. Winter Conference on Applications of Computer Vision (WACV), 2016.
6. E Learned-Miller, G Huang, A RoyChowdhury, H Li, G Hua. ***Labeled Faces in the Wild: A Survey***. Advances in Face Detection and Facial Image Analysis, Springer Heidelberg, 2016 (*invited book chapter*).
7. Tsung-Yu Lin, Aruni RoyChowdhury and Subhansu Maji. ***Bilinear CNN Models for Fine-grained Visual Recognition***. International Conference on Computer Vision (ICCV), 2015 (*oral*).
8. D Dutta, A Roy Chowdhury, U Bhattacharya, SK Parui. ***Stroke level user-adaptation for stroke order free online handwriting recognition***. International Conference on Frontiers in Handwriting Recognition (ICFHR), 2014.
9. D Dutta, A Roy Chowdhury, U Bhattacharya, SK Parui. ***Building a Personal Handwriting Recognizer on an Android Device***. International Conference on Frontiers in Handwriting Recognition (ICFHR), 2014.
10. A Roy Chowdhury, U Bhattacharya, SK Parui. ***Scene text detection using sparse stroke information and MLP***. International Conference on Pattern Recognition (ICPR), 2012.
11. A Roy Chowdhury, U Bhattacharya, SK Parui. ***Text detection of two major Indian scripts in natural scene images***. ICDAR Workshop on Camera-Based Document Analysis and Recognition (CBDAR), 2011.

TEACHING EXPERIENCE	Fall	2016	Guest lecture in Computer Vision, Boston College
	Summer	2015	Student Mentor, Research Experience for Undergraduates (REU)
	Spring	2014	Teaching Assistant, CS 121: Introduction to Computing
	Fall	2013	"

PROGRAMMING *Proficient:* C, Java, MATLAB.
 Intermediate: C++, Python.

SERVICE *Professional Service:*

- Reviewer: Transactions on Pattern Analysis and Machine Intelligence (PAMI), Computer Vision and Image Understanding (CVIU).
- Graduate Senate representative, UMass Amherst. *Spring, 2014*.
- Founder-member and Webmaster, ACM Student Chapter, Heritage Inst. of Tech., Kolkata. *2012–2013*.

Social Service:

- Vice-President, Rotaract Club of Heritage Inst. of Tech., Kolkata. *2012–2013*.