

Aruni RoyChowdhury

CONTACT INFORMATION	140 Governor's 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">– MS/PhD student in Computer Science. <i>2013–current</i>.<ul style="list-style-type: none">❑ Advisors: Erik Learned-Miller and Subhransu Maji. 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.<ul style="list-style-type: none">❑ Advisor: Erik Learned-Miller.– <i>Synthesis Project (Sep. 2015 – May 2016)</i>: Distinguishing weather phenomena from bird migration patterns in radar imagery.<ul style="list-style-type: none">❑ Reader (Ecological computing): Daniel Sheldon.❑ Readers (Vision): Erik Learned-Miller and Subhransu Maji. The Mathworks, Inc. <ul style="list-style-type: none">– <i>Internship (Jun.–Aug., 2014)</i>: Implementing a face recognition demo at the Computer Vision System Toolbox (CVST) Team.<ul style="list-style-type: none">❑ Mentors: Witek Jachimczyk and 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.<ul style="list-style-type: none">❑ 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 parallel Map-Reduce algorithm with functional programming.<ul style="list-style-type: none">❑ Mentor: Amitava Ray	
PUBLICATIONS	<ol style="list-style-type: none">1. 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), 2016.2. Aruni RoyChowdhury, Daniel Sheldon, Subhransu Maji and Erik Learned-Miller. <i>Distinguishing Weather Phenomena from Bird Migration Patterns in</i>	

- Radar Imagery.** CVPR workshop on Perception Beyond the Visual Spectrum (PBVS), 2016.
3. 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.
 4. 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*).
 5. Tsung-Yu Lin, Aruni RoyChowdhury and Subhansu Maji. **Bilinear CNN Models for Fine-grained Visual Recognition.** International Conference on Computer Vision (ICCV), 2015 (*oral*).
 6. 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.
 7. 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.
 8. A Roy Chowdhury, U Bhattacharya, SK Parui. **Scene text detection using sparse stroke information and MLP.** International Conference on Pattern Recognition (ICPR), 2012.
 9. 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 Summer 2015 Student Mentor, Research Experience for Undergraduates (REU)
 Spring 2014 Teaching Assistant, CS 121: Introduction to Computing
 Fall 2013 ”

GRADUATE COURSEWORK

<input type="checkbox"/> Computer Vision <input type="checkbox"/> Machine Learning <input type="checkbox"/> Probabilistic Graphical Models <input type="checkbox"/> Software Engineering	<input type="checkbox"/> Algorithms <input type="checkbox"/> Operating Systems <input type="checkbox"/> Deep Learning <input type="checkbox"/> Real Analysis
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PROGRAMMING SKILLS *Proficient:* C, Java, MATLAB, MatConvNet.
 Intermediate: C++, Python, OpenCV, Intel TBB, Java RMI, Android SDK, F#.NET.

SERVICE

Professional Service:

- Reviewer: Transactions on Pattern Analysis and Machine Intelligence (TPAMI).
- 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.*