

Ahmad Humayun

85 5th Street NW, Atlanta, GA 30332

+1 (404) 398-5465

✉ ahumayun@cc.gatech.edu

🌐 <http://www.ahumayun.com/>

🌐 <http://www.linkedin.com/in/ahmadhumayun>

ACHIEVEMENTS

Microsoft Research Project Prize for best MSc. Computer Graphics, Vision and Imaging thesis at UCL (2010).

BBC Best Overall Student Prize in MSc. Computer Graphics, Vision and Imaging at UCL (2010).

Software Design Finalist for Microsoft Imagine Cup 2007 Korea. The project on Automated Video Recording of Lectures (AVRiL) was selected to represent Pakistan for the first time in this prestigious invitational.

Mentor Graphics Project Award for AVRiL - best BSc. senior year project (2007).

EDUCATION

Georgia Institute of Technology Aug. '11 - (to date)
Computer Science PhD. candidate, School of Interactive Computing

University College London (UCL) Sept. '09 - Sept. '10
MSc. Computer Graphics, Vision and Imaging - *Distinction*

Lahore University of Management Sciences (LUMS) Aug. '03 - July '07
BSc. (Hons.). Computer Engineering (Major) - *High Merit*

PROFESSIONAL EXPERIENCE

Georgia Institute of Technology *Graduate Research Assistant*, Computational Perception Lab. Aug. '11 - (to date)

Facebook AI Research, Menlo Park *Research Intern* with Manohar Paluri and Piotr Dollár May '15 - July '15

Microsoft Research, Redmond *Research Intern*, Multimedia, Interaction, & Communication group May '14 - July '14

The University of Warwick *Research Associate*, Dept. of Computer Science Sept. '10 - Dec. '10

Lahore University of Management Sciences *Research Associate*, Dept. of Computer Science Jan. '07 - July '09

SELECTED PUBLICATIONS

The Middle Child Problem: Revisiting Parametric Min-cut and Seeds for Object Proposals. *ICCV* - Dec. '15. tinyurl.com/ll6ooocq

RIGOR: Recycling Inference in Graph Cuts for generating Object Regions. *CVPR* - June '14. tinyurl.com/ll6ooocq

Video Segmentation by Tracking Many Figure-Ground Segments. *ICCV* - Dec. '13. tinyurl.com/opl4rjs

Learning a Confidence Measure for Optical Flow. *IEEE PAMI* - May '13. tinyurl.com/pw76l9g

RAMTaB: Robust Alignment of Multi-Tag Bioimages. *PLoS ONE* - Feb. '12. tinyurl.com/otm3gly

Learning to Find Occlusion Regions. *CVPR* - June '11. visual.cs.ucl.ac.uk/pubs/learningOcclusion/

Myosin Motors Drive Long Range Alignment of Actin Filaments. *J. of Bio. Chemistry* - Feb. '10. tinyurl.com/p52xt48

RESEARCH PROJECTS

Optimization for Object Segmentation at Georgia Institute of Technology (as *PhD. student*)

Research on combinatoric optimization techniques for object segmentation in videos and images. Tools: MATLAB, C++

Video Supervision for Generating Video Proposals at Facebook AI Research

Video proposals by unsupervised discovery of objects in large scale video datasets. Tools: MATLAB, Python, C++,

Crowd Tracking with Multiple Depth Sensors at Microsoft Research

Developed a large area, crowd tracking system by fusing data from multiple depth sensors. Tools: KINECT SDK, C++

Detecting Occluded Regions at UCL (*MSc. thesis*)

Worked on a supervised learning method to detect regions of occlusion in a two frame sequence. Tools: MATLAB

Tracking Techniques using Object's Shape Cues at LUMS

Tracking for accurate trajectory generation using non-rigid shape descriptors. (ahumayun.com/crspd) Tools: MATLAB

Molecular Pattern Analysis of Cancerous Colon Cells at The University of Warwick

Detection of cancerous tissue by non-linear embedding of multidimensional microscopy images. Tools: MATLAB

Automated Video Recording of Lectures - AVRiL at LUMS (*senior year project*)

Developed an automated *director* that captures a multi-camera lecture environment. (avril.sproj.com) Tools: OpenCV

Improvements in Google's MapReduce Architecture at LUMS

Research enabling MapReduce to run speculatively on skewed input data. (tinyurl.com/q3detyg) Tools: Python, HADOOP

SKILLS & INTERESTS

Proficient in MATLAB, C++, Python, OpenCV | Rock climbing, photography, traveling, solving puzzles, and cycling.