

# Hani A. Altwaijry

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Computer Vision Ph.D. Candidate

## Education

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| 2014–2017 | <b>Ph.D. Candidate, Computer Science, Cornell University &amp; Cornell NYC Tech</b><br>Supported by King Abdulaziz City for Science and Technology PhD Fellowship |
| 2012–2014 | <b>Ph.D. Student, Computer Science, University of California, San Diego</b><br>Transferred to Cornell following my advisor, Dr. Serge Belongie                    |
| 2010–2012 | <b>M.Sc. in Computer Science, University of California, San Diego (3.96 GPA)</b><br>Supported by King Abdulaziz City for Science and Technology MSc Fellowship    |
| 2005–2009 | <b>B.Sc. in Computer Science, King Saud University, Kingdom of Saudi Arabia (4.99 GPA)</b><br>Graduated with First Class Honors                                   |

## Publications and Patents

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| 2016 | <i>Learning to Match Aerial Images with Deep Attentive Architectures</i><br>Altwaijry, H.; Trulls, E.; Hays, J.; Fua, P.; Belongie, S. IEEE Conference on Computer Vision and Pattern Recognition (CVPR 2016). |
| 2016 | <i>Learning to Detect and Match Keypoints with Deep Architectures</i><br>Altwaijry, H.; Veit, A.; Belongie, S. British Machine Vision Conference (BMVC 2016).  |
| 2014 | <i>Recognizing Locations with Google Glass: A Case Study</i><br>Altwaijry, H.; Moghimi, M.; Belongie, S. IEEE Winter Conference on Applications of Computer Vision (WACV 2014)                                 |
| 2013 | <i>Ultra-wide Baseline Aerial Imagery Matching in Urban Environments.</i><br>Altwaijry, H. and Belongie, S. British Machine Vision Conference (BMVC 2013)  |
| 2013 | <i>Relative Ranking of Facial Attractiveness</i><br>Altwaijry, H. and Belongie, S. IEEE Workshop on Applications of Computer Vision (WACV 2013)  |
| 2010 | <i>Method and system for automatically planning and scheduling a remote sensing satellite mission</i><br>Altwaijry, H.; Alfaleh, H.; Azmi, A. US Patent App. 12/846,016  |

## Professional Experience

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| 2016–Present | <b>Temporary Specialist - Cognitive Analytics Scientist, Verisk Analytics, Jersey City, New Jersey</b> <ul style="list-style-type: none"><li>• Research and development in applications of Deep Learning and Neural Networks.</li><li>• Started in May 2016.</li></ul>  |
| 2015         | <b>Visiting Researcher, IC CV Lab, Ecole Polytechnique Federale de Lausanne (EPFL), Lausanne, Switzerland</b> <ul style="list-style-type: none"><li>• Supervised by Prof. Pascal Fua.</li><li>• Conducted research on implementing classical correspondence matching pipelines within deep learning models and frameworks.</li><li>• Research focused on attention models and recurrent architectures.</li><li>• From September 2016 until December 2016.</li></ul>   |
| 2014–Present | <b>Research Assistant, Cornell University, Cornell NYC Tech</b> <ul style="list-style-type: none"><li>• Conducting research in several areas of computer vision, including: keypoint detection/description, correspondence matching, aerial imagery analysis, and deep-learning models for image matching.</li><li>• Serving as TA for classes: "CS 5356 Building Startup Systems/FA14. CS 6670 Computer Vision/SP15. CS 5304 Data Mining in the Wild/SP16"</li></ul> |

2012–2014	<b>Research Assistant, University of California, San Diego</b> <ul style="list-style-type: none"> <li>Conducted research in several areas of computer vision, including: keypoint detection/description, correspondence matching.</li> <li>Developed a number of computer vision demos on Android devices</li> <li>Helped in maintaing lab servers.</li> </ul>
2009–2010	<b>Researcher, National Satellite Technology Program, King Abdulaziz City for Science and Technology, Riyadh, Kingdom of Saudi Arabia</b> <ul style="list-style-type: none"> <li>Developed automation tools for the SaudiSat-3, a remote sensing satellite.</li> <li>Developed tools for tracking marine traffic from AIS data.</li> </ul>
2008	<b>Summer Intern, National Satellite Technology Program, King Abdulaziz City for Science and Technology, Riyadh, Kingdom of Saudi Arabia</b> <ul style="list-style-type: none"> <li>Developed a tool to determine areas of interest in view of the SaudiSat-3, a remote sensing satellite, during its orbit.</li> </ul>

## Awards

2012	King Abdulaziz City for Science and Technology PhD Fellowship, Riyadh, Kingdom of Saudi Arabia
2010	King Abdulaziz City for Science and Technology MSc Fellowship, Riyadh, Kingdom of Saudi Arabia
2009	Best Student Project Award - Prince Sultan Advanced Technologies Research Institute, Riyadh, Kingdom of Saudi Arabia
2009	Best Graduation Project Award - Advanced Electronics Company, Riyadh, Kingdom of Saudi Arabia

## Language Skills

Arabic	Native speaker
English	Fluent
French	Beginner

## Technical Skills

- Languages and Libraries:** Java (Knowledgable), C (Working Knowledge), C++ (Working Knowledge), Python (Knowledgable), Lua/Torch7 (Knowledgable), Matlab (Knowledgable), Javascript (Working knowledge). Also familiar with Android, MySQL, PostgreSQL,  $\text{\LaTeX}$ , HTML and CSS.
- Linux Server Administration:** Familiar with Ubuntu, and cloud services e.g. Amazon AWS.
- Computer vision and machine learning:** Familiar with several high-level computer vision problems including object detection/recognition, face detection/identification, and feature matching and correspondence. Familiar with several common ML/CV tools including libsvm, scikit-learn, Theano, OpenCV, Torch7.