

1. **Name:** Andrew R. Willis

**Academic Rank:** Associate Professor

2. **Degrees:**

BS	WPI (Worcester Polytechnic Institute) (Computer Science)	1994
BS	WPI (Worcester Polytechnic Institute) (Electrical Eng.)	1995
MS	Brown University (Electrical Sciences)	2001
MS	Brown University (Applied Mathematics)	2003
PhD	Brown University (Engineering Sciences)	2004

3. **UNC Charlotte (number of years = 11)**

- Associate Professor: 2011 – present
- Adjunct Professor of Computer Science (2012-2015)
- Assistant Professor: 2005 – 2011

4. **Other related experience:**

- Engineer, Morgan Construction Company, 1994-1998

5. **Certifications or professional registrations:** None

6. **Current membership in professional organizations**

- Institute of Electrical and Electronics Engineers (Senior Member) (1995 - present)
- Association for Computing Machinery (ACM) (Senior Member) (2004 – present)

7. **Honors and awards:**

- John H. Maxheim Faculty Fellowship, received from the UNCC College of Engineering August 2008.

8. **Institutional and professional service in the last five years:**

- ECE Departmental Review Committee (Promotion and Tenure DRC) (2010, 2012 (chair), 2014, 2015)
- ECE Outreach Committee (2014, 2015)
- ECE Undergraduate Curriculum Committee (2010, 2013, 2014, 2015)
- ECEComm. and Signal Processing Technical Thrust Group (2010-2015)
- ECE Hiring Committee (2014, 2015 (chair hiring committee))
- COE Reassignment of Duties Committee (2012, 2013)
- COE Academic Policy and Curriculum Committee (2014, 2015)

9. **Principal publications of last five years:**

- Shadid, W. G., and Willis, A., A prototypical system to virtually reconstruct high energy fracture events, *International Biomechanics*, 2(1), pp. 89–100, August 2015. doi: 10.1080/23335432.2015.1070687
- Eppes, M.-C., Willis, A., Molaro, J., Abernathy, S. and Zhou B., Cracks in Martian boulders exhibit preferred orientations that point to solar-induced thermal stress, *Nature Communications*, 6(6712), pp. 1–11, March 2015. doi: 10.1038/ncomms7712
- Shue, S., Willis, A., and Weldon, T., HubVis: Software for Gravitational Lens Estimation and Visualization from Hubble Data, *Proceedings of IEEE SoutheastCon*, pp. 1-5, March, 2014.

- Hunter, K.B., Conrad, J.M. and Willis, A., Visible light communication using a digital camera and LED flashlight, Proceedings of IEEE SoutheastCon, pp. 1-5, March 2014.
- Mahfoud, E. and Willis, A., Volumetric Shape Grammars for Image Segmentation and Shape Estimation, Proceedings of IEEE SoutheastCon, pp. 1-6, 2013.
- Shadid, W. and Willis, A., Bone Fragment Segmentation From 3D CT Imagery Using the Probabilistic Watershed Transform, Proceedings of IEEE SoutheastCon, pp. 1-8, 2013.
- Longjiang, E. Shadid, W. and Willis, A., Using a MAP-MRF model to improve 3D mesh segmentation algorithms, Proceedings of IEEE SoutheastCon, pp. 1-7, 2013.
- Thomas T.P., Anderson D.D., Willis A., Liu P., Marsh J.L., Brown T.D., ASB Clinical Biomechanics Award Paper 2010 Virtual pre-operative reconstruction planning for comminuted articular fractures . Clinical Biomechanics 2011, 26(2), pp. 109–115, February 2011. PMID:21215501. NIHMSID:259455
- Thomas T.P., Anderson D.D., Willis A., Liu P., Frank M.C., Marsh J.L., and Brown T.D. A Computational/Experimental Platform for Investigating Three-Dimensional Puzzle Solving of Comminuted Articular Fractures. Computer Methods in Biomechanics and Biomedical Engineering. 14(3), pp. 263–270, March 2010.
- Willis, A. and Sui, Y. and Galor, K. and Sanders, D., Estimating Gothic Facade Architecture from Imagery, Conference on Computer Vision and Pattern Recognition (CVPR) Workshop, June 14, pp. 43–48, 2010.
- Gay, E. and Galor, K. and Cooper, D. and Willis, A. and Kimia, B. and Taubin, G. and Sanders, D. et. al., REVEAL Intermediate Report, Conference on Computer Vision and Pattern Recognition (CVPR) Workshop, June 14, pp. 1–6, 2010.

#### **10. Professional development activities in the last five years:**

- 3DIMPVT - International Conference on 3-D Imaging, Modeling, Processing Visualization and Transmission – Technical Program (2010)
- SIGGRAPH - International Conference and Exhibition on Computer Graphics and Interactive Techniques – Technical Program (2011)
- 3DV - International Conference on 3-D Vision – Technical Program (2012-2015)
- VISIGRAPP - International Joint Conference on Computer Vision, Imaging, and Computer Graphics Theory and Applications – Technical Program (2015-2016)