

# Levi Lister

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## EDUCATION

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- Columbia University, Fu Foundation School of Engineering and Applied Science** New York, NY  
• **MS in Computer Science**, GPA 3.7 Dec. 2007  
• **Research Project:** Developed tangible augmented reality system to provide intuitive graphical hints for potential motion-based hand gestures; performed user study in collaboration with PhD student to test significance of various techniques  
• **Relevant Coursework:** Computer Vision 3D Photography  
Computer Graphics 3D User Interface Design  
Advanced Project Course Visual Interfaces to Computers
- George Mason University, School of Information Technology and Engineering** Fairfax, VA  
• **BS in Computer Engineering and Computer Science**, GPA 3.63 May 2006  
• **Robotics Project:** Worked in team to program autonomous mobile robot to sort colored soda cans  
• **Computer Vision Project:** Created virtual whiteboard application using object tracking based on color histograms

## EXPERIENCE

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- Computer Graphics and User interfaces Lab, Columbia University** New York, NY  
*Graduate Research Assistant, Advisor: Dr. Steven Feiner* Summer 2007  
• Developed augmented reality racing game in which a 3D virtual car and environment models appear superimposed on a table when viewed through a head-worn display
- National Robotics Engineering Center, Carnegie Mellon University** Pittsburgh, PA  
*Robotics Institute Summer Scholar* Summer 2006  
• Wrote utilities to facilitate the calibration of the Crusher autonomous robotic vehicle's perception system consisting of multiple Sick laser-range finders and Point Grey Bumblebee cameras
- Trak-Tech Corp.** Fairfax, VA  
*Systems Programs Analyst* 1998 – 2005  
• Developed and maintained data acquisition and analysis software for a railroad track geometry measurement system utilizing GPS, inertial measurement unit, and machine vision to detect and report locations for potential train derailments  
• Implemented machine vision system using multiple lasers and cameras for non-contact optical gage measurement system to compute distance between rails accurate to 1/32 inch

## TECHNICAL SKILLS

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- **Applications:** MS Excel, PowerPoint, Word, Visio, Google Sketchup, Adobe Photoshop, Subversion
- **Programming Languages:** C, C++, C#, Matlab, Java, Visual Basic, and HTML
- **Development Tools:** Visual Studio .NET, Eclipse, NetBeans, OpenCV, OpenGL, XNA
- **Operating Systems:** Windows 9x/NT/2000/XP/Vista, Linux, UNIX, Mac OS X
- **Research & Development:** Image processing, 3D graphics software development, information visualization, GPS/INS navigation systems, hardware-software interaction, object-oriented software design

## PUBLICATIONS

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- White, S., Lister, L., and Feiner, S.** Visual Hints for Tangible Gestures in Augmented Reality.  
Proc. ISMAR 2007 IEEE and ACM Int. Symp. on Mixed and Augmented Reality, Japan, Nov. 13-16, 2007.
- Oda, O., Lister, L., White, S., and Feiner S.** Developing an Augmented Reality Racing Game.  
Proc. INTETAIN 2008 2nd Int. Conf. on Intelligent Technologies for Interactive Entertainment, Mexico, Jan. 8-10 2008.

## ACTIVITIES

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- President, GMU Applied Robotics Club 2005 – 2006
- President, GMU Society of American Military Engineers 2004 – 2005
- Honor Societies: Eta Kappa Nu, Tau Beta Epsilon, Golden Key 2003 – 2006