Frederick P. Brooks, Jr. Ph.D. Students Title Year Student Focus 2007 Eric Burns VR MACBETH: Management of Avatar Conflict By Employment of a Technique Hybrid 2005 Sharif Razzaque VR-IF Redirected Walking 2004 Paul M. Zimmons VR The Influence of Lighting Quality on Presence and Task Performance in Virtual Environments 2003 Alexandra Bokinsky Sci Vis Interactive Visualization of Multiple Spatial Variables with Data-Driven Spots 2002 Ben Lok VR–IF Interacting with Dynamic Real Objects in Virtual Environments Passive Haptics Significantly Enhances Virtual Environments 2001 Brent Insko VR-Haptics Physiological Reaction as an Objective Measure of Presence 2001 Michael Meehan VR 2000 Kevin Arthur VR Effects of Field of View on Performance with Head-Mounted Displays 1999 Rui Bastos Graphics SUPERPOSITION RENDERING: Increased Realism for Interactive walkthroughs 1998 David Luebke Graphics View-Dependent Simplification of Arbitrary Polygonal Environments Mark R. Mine Exploiting Proprioception in Virtual-Environment Interaction 1997 VR-IF 1995 Richard L. Holloway VR Registration Errors in Augmented Reality Systems 1995 Jeffrey P. Hultquist Sci Vis Interactive Numerical Flow Visualization Using Stream Surfaces 1994 Elton P. Amburn VR Development and Evaluation of an Air-to-Air Combat Debriefing System Using a Head-Mounted Display 1994 Russell M. Tavlor II Sci Vis-IF The Nanomanipulator: A Virtual-Reality Interface to a Scanning Tunneling Microscope Hierarchical Geometric Approximations 1994 Amitabh Varshnev Comp Geo 1993 Lawrence D. Bergman VIEW--A System for Prototyping Scientific Visualizations Sci Vis 1993 James Che-Ming Chung IF-VR Intuitive Navigation in the Targeting of Radiation Therapy Treatment Beams 1993 Penny L. Rheingans Sci Vis Dynamic Explorations of Multiple Variables in a 2D Space 1992 Mark C. Surles Sci Vis Techniques for Interactive Manipulation of Graphical Progein Models 1990 John M. Airey Comp Geo-VR Increasing Update Rates in the Building Walkthrough System with Automatic Model-Space Subdivision and Potentially Visible Set Calculations Ming Ouh-young Force Display in Molecular Docking 1990 Haptics-IF 1990 Russell Tuck Prog Lang Porta-SIMD: An Optimally Portable SIMD Programming Language 1990 Mark C. Davis A Computer for Low Context-Switch Time Arch 1988 Andrew S. Glassner Graphics Algorithms for Efficient Image Synthesis 1982 Thomas V. Williams A Man-Machine Interface for Interpreting Electron Density Maps IF-Sci Vis 1981 James S. Lipscomb Sci Vis Three-Dimensional Cues for a Molecular Computer Graphics System F. Donelson Smith 1978 Arch Models of Multiprocessing for Transaction-Oriented Computer Systems Thomas H. Dunigan, Jr. The Design of a Computer System with All-Electronic Files 1978 Arch 1977 Edward G. Britton IF-Sci Vis A Methodology for the Ergonomic Design of Interactive Computer Graphic Systems, and its Application to Crystallography 1976 Paul J. Kilpatrick Haptics The Use of a Kinesthetic Supplement in an Interactive Graphics System 1975 Cheryl C. Sneeringer Op Sys Models of Memory Management Techniques for Time-sharing Systems 1975 James W. Sneeringer IV Prog Lang A Dynamic-type Programming Language that Allows Type Control 1973 Craig J. Mudge IF-CAI Human Factors in the Design of a Computer-Assisted Instruction System 1972 William V. Wright An Interactive Computer Graphics System for Molecular Studies Sci Vis 1969 Jan S. Prokop Graphics-IF An Investigation of the Effects of Computer Graphics on Executive Decision Making in an Inventory Control Environment 1969 Alfred Paul Oliver A Measurement of the Effectiveness of An Interactive Display System in Teaching Numerical Analysis Graphics-IF 1958 William Y. Stevens Arch A Case Study of Decision Operations in Digital Computers IF = human-computer interface