

Gregory F Welch

List of Publications by Year in descending order

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Version: 2024-02-01

131
papers

3,657
citations

361413

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136
all docs

136
docs citations

136
times ranked

2170
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Virtual Humans with Pets and Robots: Exploring the Influence of Social Priming on One's Perception of a Virtual Human. , 2022, , . | | 1 |
| 2 | A Scoping Review of Assistance and Therapy with Head-Mounted Displays for People Who Are Visually Impaired. ACM Transactions on Accessible Computing, 2022, 15, 1-28. | 2.4 | 5 |
| 3 | The advantages of virtual dogs over virtual people: Using augmented reality to provide social support in stressful situations. International Journal of Human Computer Studies, 2022, 165, 102838. | 5.6 | 7 |
| 4 | Mixed Reality Tabletop Gameplay: Social Interaction With a Virtual Human Capable of Physical Influence. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 3534-3545. | 4.4 | 15 |
| 5 | Virtual Animals as Diegetic Attention Guidance Mechanisms in 360-Degree Experiences. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 4321-4331. | 4.4 | 4 |
| 6 | Beyond Visible Light: User and Societal Impacts of Egocentric Multispectral Vision. Lecture Notes in Computer Science, 2021, , 317-335. | 1.3 | 1 |
| 7 | Mixed Reality Technology Capabilities for Combat-Casualty Handoff Training. Lecture Notes in Computer Science, 2021, , 695-711. | 1.3 | 0 |
| 8 | Autonomous Vehicle Visual Embodiment for Pedestrian Interactions in Crossing Scenarios. , 2021, , . | | 6 |
| 9 | An Extended Analysis on the Benefits of Dark Mode User Interfaces in Optical See-Through Head-Mounted Displays. ACM Transactions on Applied Perception, 2021, 18, 1-22. | 1.9 | 11 |
| 10 | Trade-offs in Augmented Reality User Interfaces for Controlling a Smart Environment. , 2021, , . | | 2 |
| 11 | Diegetic Representations for Seamless Cross-Reality Interruptions. , 2021, , . | | 18 |
| 12 | Augmenting Human Perception: Mediation of Extrasensory Signals in Head-Worn Augmented Reality. , 2021, , . | | 0 |
| 13 | The A-Desk: A Unified Workspace of the Future. IEEE Computer Graphics and Applications, 2020, 40, 56-71. | 1.2 | 1 |
| 14 | Reducing Cognitive Load and Improving Warfighter Problem Solving With Intelligent Virtual Assistants. Frontiers in Psychology, 2020, 11, 554706. | 2.1 | 8 |
| 15 | Sharing gaze rays for visual target identification tasks in collaborative augmented reality. Journal on Multimodal User Interfaces, 2020, 14, 353-371. | 2.9 | 18 |
| 16 | Examining Whether Secondary Effects of Temperature-Associated Virtual Stimuli Influence Subjective Perception of Duration. , 2020, , . | | 3 |
| 17 | Reducing Task Load with an Embodied Intelligent Virtual Assistant for Improved Performance in Collaborative Decision Making. , 2020, , . | | 12 |
| 18 | A Systematic Review of Ten Years of Research on Human Interaction with Social Robots. International Journal of Human-Computer Interaction, 2020, 36, 1804-1817. | 4.8 | 34 |

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|----|--|-----|-----------|
| 19 | Neurological Assessment Using a Physical-Virtual Patient (PVP). <i>Simulation and Gaming</i> , 2020, 51, 802-818. | 1.9 | 6 |
| 20 | Applying Stress Management Techniques in Augmented Reality: Stress Induction and Reduction in Healthcare Providers During Virtual Triage Simulation. , 2020, , . | | 4 |
| 21 | Reducing Task Load with an Embodied Intelligent Virtual Assistant for Improved Performance in Collaborative Decision Making. , 2020, , . | | 8 |
| 22 | The Physical-Virtual Patient Simulator. <i>Simulation in Healthcare</i> , 2020, 15, 115-121. | 1.2 | 16 |
| 23 | Virtual Big Heads: Analysis of Human Perception and Comfort of Head Scales in Social Virtual Reality. , 2020, , . | | 2 |
| 24 | Effects of Dark Mode Graphics on Visual Acuity and Fatigue with Virtual Reality Head-Mounted Displays. , 2020, , . | | 5 |
| 25 | Effects of Depth Information on Visual Target Identification Task Performance in Shared Gaze Environments. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2020, 26, 1934-1944. | 4.4 | 11 |
| 26 | Exploring the Limitations of Environment Lighting on Optical See-Through Head-Mounted Displays. , 2020, , . | | 22 |
| 27 | Assessing Fall Risk Appraisal Through Combined Physiological and Perceived Fall Risk Measures Using Innovative Technology. <i>Journal of Gerontological Nursing</i> , 2020, 46, 41-47. | 0.6 | 14 |
| 28 | Augmented rotations in virtual reality for users with a reduced range of head movement. <i>Journal of Rehabilitation and Assistive Technologies Engineering</i> , 2019, 6, 205566831984130. | 0.9 | 5 |
| 29 | Blowing in the wind: Increasing social presence with a virtual human via environmental airflow interaction in mixed reality. <i>Computers and Graphics</i> , 2019, 83, 23-32. | 2.5 | 24 |
| 30 | Matching vs. Non-Matching Visuals and Shape for Embodied Virtual Healthcare Agents. , 2019, , . | | 0 |
| 31 | Social interaction in augmented reality. <i>PLoS ONE</i> , 2019, 14, e0216290. | 2.5 | 116 |
| 32 | Implementation and Evaluation of a 50 kHz, μs Motion-to-Pose Latency Head Tracking Instrument. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2019, 25, 1970-1980. | 4.4 | 6 |
| 33 | A Systematic Review of the Convergence of Augmented Reality, Intelligent Virtual Agents, and the Internet of Things. <i>Transactions on Computational Science and Computational Intelligence</i> , 2019, , 1-24. | 0.3 | 35 |
| 34 | Is It Cold in Here or Is It Just Me? Analysis of Augmented Reality Temperature Visualization for Computer-Mediated Thermoception. , 2019, , . | | 11 |
| 35 | Effects of Patient Care Assistant Embodiment and Computer Mediation on User Experience. , 2019, , . | | 20 |
| 36 | Walking Your Virtual Dog: Analysis of Awareness and Proxemics with Simulated Support Animals in Augmented Reality. , 2019, , . | | 33 |

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| 37 | Investigating Augmented Reality Animals as Companions. , 2019, , . | | 5 |
| 38 | Effects of Dark Mode on Visual Fatigue and Acuity in Optical See-Through Head-Mounted Displays. , 2019, , . | | 20 |
| 39 | Effects of Shared Gaze Parameters on Visual Target Identification Task Performance in Augmented Reality. , 2019, , . | | 12 |
| 40 | Analysis of Peripheral Vision and Vibrotactile Feedback During Proximal Search Tasks with Dynamic Virtual Entities in Augmented Reality. , 2019, , . | | 3 |
| 41 | Effects of Unaugmented Periphery and Vibrotactile Feedback on Proxemics with Virtual Humans in AR. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 1525-1534. | 4.4 | 33 |
| 42 | The physical-virtual table. , 2018, , . | | 21 |
| 43 | Does a Digital Assistant Need a Body? The Influence of Visual Embodiment and Social Behavior on the Perception of Intelligent Virtual Agents in AR. , 2018, , . | | 77 |
| 44 | Seeing is Believing: Improving the Perceived Trust in Visually Embodied Alexa in Augmented Reality. , 2018, , . | | 10 |
| 45 | Physical-Virtual Agents for Healthcare Simulation. , 2018, , . | | 10 |
| 46 | A Systematic Survey of 15 Years of User Studies Published in the Intelligent Virtual Agents Conference. , 2018, , . | | 36 |
| 47 | A Systematic Review of Social Presence: Definition, Antecedents, and Implications. Frontiers in Robotics and AI, 2018, 5, 114. | 3.2 | 388 |
| 48 | Cognitive and Touch Performance Effects of Mismatched 3D Physical and Visual Perceptions. , 2018, , . | | 11 |
| 49 | Revisiting Trends in Augmented Reality Research: A Review of the 2nd Decade of ISMAR (2008â€“2017). IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 2947-2962. | 4.4 | 232 |
| 50 | In the blink of an eye. ACM Transactions on Graphics, 2018, 37, 1-11. | 7.2 | 86 |
| 51 | Situated Analytics. Lecture Notes in Computer Science, 2018, , 185-220. | 1.3 | 40 |
| 52 | Assessing vignetting as a means to reduce VR sickness during amplified head rotations. , 2018, , . | | 27 |
| 53 | Augmented Reality for Tactical Combat Casualty Care Training. Lecture Notes in Computer Science, 2018, , 227-239. | 1.3 | 3 |
| 54 | Mine the Gap. , 2018, , . | | 0 |

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| 55 | Can social presence be contagious? Effects of social presence priming on interaction with Virtual Humans. , 2017, , . | | 6 |
| 56 | Exploring the effect of vibrotactile feedback through the floor on social presence in an immersive virtual environment. , 2017, , . | | 19 |
| 57 | Coherence changes gaze behavior in virtual human interactions. , 2017, , . | | 2 |
| 58 | The effects of virtual human's spatial and behavioral coherence with physical objects on social presence in AR. Computer Animation and Virtual Worlds, 2017, 28, e1771. | 1.2 | 51 |
| 59 | Effects of Social Priming on Social Presence with Intelligent Virtual Agents. Lecture Notes in Computer Science, 2017, , 87-100. | 1.3 | 9 |
| 60 | The impact of avatar-owner visual similarity on body ownership in immersive virtual reality. , 2017, , . | | 38 |
| 61 | Exploring the effects of observed physicality conflicts on real-virtual human interaction in augmented reality. , 2017, , . | | 26 |
| 62 | A Large-Scale Study of Surrogate Physicality and Gesturing on Humanâ€™Surrogate Interactions in a Public Space. Frontiers in Robotics and AI, 2017, 4, . | 3.2 | 10 |
| 63 | Mitigating Perceptual Error in Synthetic Animatronics using Visual Feature Flow. Journal of Vision, 2017, 17, 331. | 0.3 | 0 |
| 64 | The wobbly table: Increased social presence via subtle incidental movement of a real-virtual table. , 2016, , . | | 35 |
| 65 | HuSIS: A Dedicated Space for Studying Human Interactions. IEEE Computer Graphics and Applications, 2016, 36, 26-36. | 1.2 | 2 |
| 66 | Exploring social presence transfer in real-virtual human interaction. , 2016, , . | | 4 |
| 67 | Optical Touch Sensing on Nonparametric Rear-Projection Surfaces for Interactive Physical-Virtual Experiences. Presence: Teleoperators and Virtual Environments, 2016, 25, 33-46. | 0.6 | 11 |
| 68 | Exploring the Impact of Environmental Effects on Social Presence with a Virtual Human. Lecture Notes in Computer Science, 2016, , 470-474. | 1.3 | 4 |
| 69 | Virtual Learning Environments for Students with Disabilities: A Review and Analysis of the Empirical Literature and Two Case Studies. Rural Special Education Quarterly, 2015, 34, 26-32. | 0.9 | 24 |
| 70 | Applications of Avatar Mediated Interaction to Teaching, Training, Job Skills and Wellness. Lecture Notes in Computer Science, 2015, , 133-146. | 1.3 | 9 |
| 71 | Kalman Filters for Dynamic and Secure Smart Grid State Estimation. Intelligent Industrial Systems, 2015, 1, 29-36. | 1.0 | 9 |
| 72 | Touch sensing on non-parametric rear-projection surfaces: A physical-virtual head for hands-on healthcare training. , 2015, , . | | 8 |

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| 73 | Maintaining and Enhancing Human-Surrogate Presence in Augmented Reality. , 2015, , . | | 9 |
| 74 | Dynamic state estimation of a synchronous machine using PMU data: A comparative study. , 2015, , . | | 2 |
| 75 | Secure and adaptive state estimation for a PMU-equipped smart grid. , 2015, , . | | 2 |
| 76 | Dynamic State Estimation of a Synchronous Machine Using PMU Data: A Comparative Study. IEEE Transactions on Smart Grid, 2015, 6, 450-460. | 9.0 | 191 |
| 77 | Technical Report: Exploring Human Surrogate Characteristics. Lecture Notes in Computer Science, 2015, , 215-228. | 1.3 | 3 |
| 78 | A Unified Framework for Individualized Avatar-Based Interactions. Presence: Teleoperators and Virtual Environments, 2014, 23, 109-132. | 0.6 | 29 |
| 79 | Online control of active camera networks for computer vision tasks. ACM Transactions on Sensor Networks, 2014, 10, 1-40. | 3.6 | 7 |
| 80 | Pixel-wise closed-loop registration in video-based augmented reality. , 2014, , . | | 3 |
| 81 | A Two-Stage Kalman Filter Approach for Robust and Real-Time Power System State Estimation. IEEE Transactions on Sustainable Energy, 2014, 5, 629-636. | 8.8 | 105 |
| 82 | Development of vision-aided navigation for a wearable outdoor augmented reality system. , 2014, , . | | 8 |
| 83 | Good Enough Yet? A Preliminary Evaluation of Human-Surrogate Interaction. Lecture Notes in Computer Science, 2014, , 239-250. | 1.3 | 2 |
| 84 | Testing and evaluation of a wearable augmented reality system for natural outdoor environments. , 2013, , . | | 8 |
| 85 | AMITIES. , 2013, , . | | 9 |
| 86 | Smart instrumented training ranges: bringing automated system solutions to support critical domain needs. Journal of Defense Modeling and Simulation, 2013, 10, 327-342. | 1.7 | 6 |
| 87 | Automated Camera Selection and Control for Better Training Support. Lecture Notes in Computer Science, 2013, , 50-59. | 1.3 | 1 |
| 88 | Continuum of virtual-human space. , 2012, , . | | 5 |
| 89 | Advances in Shader Lamps Avatars for telepresence. , 2012, , . | | 3 |
| 90 | General chairs. , 2012, , . | | 0 |

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| 91 | Gen chairs. , 2012, , . | | 0 |
| 92 | Local sequential ensemble Kalman filter for simultaneously tracking states and parameters. , 2012, , . | | 9 |
| 93 | Physical-Virtual Humans: Challenges and Opportunities. , 2012, , . | | 1 |
| 94 | Three-dimensional evaluation of changes in lip position from before to after orthodontic appliance removal. American Journal of Orthodontics and Dentofacial Orthopedics, 2012, 142, 410-418. | 1.7 | 13 |
| 95 | A general approach for closed-loop registration in AR. , 2012, , . | | 4 |
| 96 | Shader Lamps Virtual Patients: the physical manifestation of virtual patients. Studies in Health Technology and Informatics, 2012, 173, 372-8. | 0.3 | 2 |
| 97 | Continual surface-based multi-projector blending for moving objects. , 2011, , . | | 8 |
| 98 | LoDiM: A novel power system state estimation method with dynamic measurement selection. , 2011, , . | | 7 |
| 99 | Power system state estimation with dynamic optimal measurement selection. , 2011, , . | | 4 |
| 100 | Animatronic shader lamps avatars. Virtual Reality, 2011, 15, 225-238. | 6.1 | 19 |
| 101 | On-line control of active camera networks for computer vision tasks. , 2011, , . | | 1 |
| 102 | Reduced Measurement-space Dynamic State Estimation (ReMeDySE) for power systems. , 2011, , . | | 9 |
| 103 | Observability and estimation uncertainty analysis for PMU placement alternatives. , 2010, , . | | 24 |
| 104 | Optimal PMU placement evaluation for power system dynamic state estimation. , 2010, , . | | 17 |
| 105 | 3D Motion Segmentation Using Intensity Trajectory. Lecture Notes in Computer Science, 2010, , 157-168. | 1.3 | 0 |
| 106 | HISTORY: The Use of the Kalman Filter for Human Motion Tracking in Virtual Reality. Presence: Teleoperators and Virtual Environments, 2009, 18, 72-91. | 0.6 | 40 |
| 107 | A Distributed Cooperative Framework for Continuous Multi-Projector Pose Estimation. , 2009, , . | | 16 |
| 108 | Animatronic Shader Lamps Avatars. , 2009, , . | | 39 |

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| 109 | Multi-view lenticular display for group teleconferencing. , 2009, , . | | 6 |
| 110 | 3D medical collaboration technology to enhance emergency healthcare. Journal of Biomedical Discovery and Collaboration, 2009, 4, 4. | 2.0 | 4 |
| 111 | Exploring the potential of video technologies for collaboration in emergency medical care: Part I. Information sharing. Journal of the Association for Information Science and Technology, 2008, 59, 2320-2334. | 2.6 | 6 |
| 112 | Exploring the potential of video technologies for collaboration in emergency medical care: Part II. Task performance. Journal of the Association for Information Science and Technology, 2008, 59, 2335-2349. | 2.6 | 6 |
| 113 | The potential impact of 3d telepresence technology on task performance in emergency trauma care. , 2007, , . | | 14 |
| 114 | Differential Camera Tracking through Linearizing the Local Appearance Manifold. , 2007, , . | | 6 |
| 115 | An interactive camera placement and visibility simulator for image-based VR applications. , 2006, , . | | 4 |
| 116 | Illumination Insensitive Model-Based 3D Object Tracking and Texture Refinement. , 2006, , . | | 3 |
| 117 | Experimental Comparison of 2D and 3D Technology Mediated Paramedicâ€Physician Collaboration in Remote Emergency Medical Situations. Proceedings of the American Society for Information Science and Technology, 2006, 43, 1-19. | 0.2 | 1 |
| 118 | A general method for comparing the expected performance of tracking and motion capture systems. , 2005, , . | | 15 |
| 119 | A UNIFIED APPROACH TO REAL-TIME, MULTI-RESOLUTION, MULTI-BASELINE 2D VIEW SYNTHESIS AND 3D DEPTH ESTIMATION USING COMMODITY GRAPHICS HARDWARE. International Journal of Image and Graphics, 2004, 04, 627-651. | 1.5 | 25 |
| 120 | Combining Head-Mounted and Projector-Based Displays for Surgical Training. Presence: Teleoperators and Virtual Environments, 2004, 13, 128-145. | 0.6 | 12 |
| 121 | Real-Time Consensus-Based Scene Reconstruction Using Commodity Graphics Hardware+. Computer Graphics Forum, 2003, 22, 207-216. | 3.0 | 22 |
| 122 | Experiential telepresence. , 2003, , . | | 0 |
| 123 | Fast Image Segmentation and Smoothing Using Commodity Graphics Hardware. Journal of Graphics Tools, 2002, 7, 91-100. | 0.5 | 43 |
| 124 | Real-time view synthesis using commodity graphics hardware. , 2002, , . | | 25 |
| 125 | High-Performance Wide-Area Optical Tracking: The HiBall Tracking System. Presence: Teleoperators and Virtual Environments, 2001, 10, 1-21. | 0.6 | 117 |
| 126 | Life-sized projector-based dioramas. , 2001, , . | | 55 |

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| 127 | Shader Lamps: Animating Real Objects With Image-Based Illumination. Eurographics, 2001, , 89-102. | 0.4 | 127 |
| 128 | The office of the future. , 1998, , . | | 581 |
| 129 | SCAAT. , 1997, , . | | 176 |
| 130 | A survey of power management techniques in mobile computing operating systems. Operating Systems Review (ACM), 1995, 29, 47-56. | 1.9 | 30 |
| 131 | Using Simulation to Test Validity and Reliability of I-BIDS: A New Handoff Tool. Simulation and Gaming, 0, , 104687812210985. | 1.9 | 2 |