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Research Interests

My research revolves around the utilization of *virtual reality* to simulate the experience of *real-life spaces for real-world outcomes*. My *long-term goal* is to better understand the human experience of immersive visualization to enable a more *effective means of designing virtual reality systems* and *communicating virtual reality content*.

Education

2010 – 2012 **Post-Doctoral Researcher**,
University of Wisconsin-Madison.

2007 – 2010 **Doctor of Philosophy in Computer Science Engineering**,
University of California, San Diego, September 2010.
Computer Science Track

2004 – 2006 **Master of Science in Engineering**,
University of California, Irvine, September 2006.
Arts Computation Engineering

2000 – 2004 **Bachelor of Science in Computer Engineering**,
University of Wisconsin-Madison, May 2004.
Computer Engineering Track

Intellectual Property

1 US Patent App. 12/920,056 / UC Case No: 2011-812
CGLX Core Engine

2 US Patent App. 15/996,096 / WARF 15996096
Systems, Methods, And Media For Hierarchical Progressive Point Cloud Rendering

Awards

2017 **Wade and Bev Fetzer Fund for Excellence**,
Award for Demonstrated Excellence (Scholarship),
School of Human Ecology, University of Wisconsin Madison.

Joy H. Dohr Award for Design Excellence,
Exploratory look at consumer behavior in real and simulated 3D virtual reality environment,
Kang, H., Ponto, K.,
Department of Design Studies, University of Wisconsin Madison.

2014	**Best Poster Honorable Mention**,
	Assessing Exertions: How an increased level of immersion unwittingly leads to more natural behavior, Ponto, K., Chen, K., Tredinnick, R., Radwin, R., IEEE Conference on Virtual Reality 2014.
2013	**Best Paper Nominee**,
	Perceptual Calibration for Immersive Display Environments, Ponto, K., Gleicher, M., Radwin, R., Shin, H.J., IEEE Conference on Virtual Reality 2013.
2012	**Winners of the WARF Discovery Challenge**,
	Volumetric visualization of dynamic time varying data, Ponto, K., Roy, C., Tredinnick, R., WARF Discovery Challenge Poster Symposium.
2007	**Prix Ars Electronica Honorary Mention in the Category of Hybrid Art**,
	Pigeon Blog, Da Costa, B., Hazegh, C., Ponto, K.
2006	**Adobe Emerging Artist Award**,
	Pigeon Blog, Da Costa, B., Hazegh, C. and Ponto, K.

Scholarships/Fellowships

2010-2012	**CIBM Training Program (NLM 5T15LM007359)**,
	University of Wisconsin - Madison.
2009-2010	**Chancellors Interdisciplinary Collaboratories Student Fellowship**,
	University of California, San Diego.
2008-2009	**Chancellors Interdisciplinary Collaboratories Student Fellowship**,
	University of California, San Diego.
2006-2007	**Holmes Fellowship Recipient**,
	University of California, Irvine.
2005-2006	**ACE Scholarship Recipient**,
	University of California, Irvine.
2000	**University of Wisconsin Undergraduate Engineering Scholarship Recipient**,
	University of Wisconsin - Madison.

Funded Proposals

Co-Principal Investigator	**Living independently at home: Effect of home medications on functional independence, acute stress response, and adaptive behaviors of persons with disabilities.**,
	Tommy Thompson Foundation, Principal Investigator: J. Shin, Total Costs $130,181 (Start Date: 7-01-2018 End Date: 06-31-2021).
Co-Principal Investigator	**Simulating Activities of Daily Living for the Assessment of Fall Risk in Older Adults**,
	CHS 1815506 National Science Foundation, Principal Investigator: A. Mason, Total Costs $499,999 (Start Date: 9-01-2018 End Date: 08-31-2021).

Principal Investigator	**Point Cloud Data in Virtual and Augmented Reality**, *WARF Accelerator Program*, Principal Investigator: K. Ponto, Total Costs $83,201 (Start Date: 10-01-2018 End Date: 12-31-2019).
Co-Principal Investigator	**What the moon saw, interactive performance research**, *School of Education Grand Challenges Engage Grant*, Principal Investigator: D. Lisowski, Total Costs $25,000 (Start Date: 11-01-2017 End Date: 10-30-2019).
Principal Investigator	**Designing Next Generation Marketplaces**, *University of Wisconsin Fall Research Competition*, Principal Investigator: K. Ponto, Total Costs $39,270 (Start Date: 07-01-2017 End Date: 06-30-2018).
Principal Investigator	**Analyzing the Impact of Virtual Reality and 3D Capture Technology on Crime Scene Investigation**, *2016-IJ-CX-0017 Department of Justice*, Principal Investigator: K. Ponto, Total Costs $265,103 (Start Date: 01-31-2017 End Date: 12-31-2018).
Principal Investigator	**Exploring the Universe from Antarctica**, *OPP 1612504 National Science Foundation*, Principal Investigator: K. Ponto, Total Costs $299,834 (Start Date: 09-01-2016 End Date: 8-31-2018).
Co-Investigator	**Virtualized Homes: Tools for Better Discharge Planning**, *R03 HS024623 Agency for Healthcare Research and Quality*, Principal Investigator: P. Brennan / M. Broecker / E. Mendonca, Total Costs $99,895 (Start Date: 01-01-2016 End Date: 12-31-2016).
Co-Investigator	**e3iVR: Conference on ethics in investigational and interventional uses of immersive VR**, *R13 HS024833 Agency for Healthcare Research and Quality*, Principal Investigator: E. Gill, Total Costs $32,079 (Start Date: 07-01-2016 End Date: 3-31-2017).
Co-Principal Investigator	**Bridging Neuroscience, Engineering and Plant Biology to Develop Novel Methods for Live-Cell Imaging in Three-Dimensions**, *University of Wisconsin Interdisciplinary Competition*, Principal Investigator: P. Krysan, Total Costs $89,464 (Start Date: 07-01-2015 End Date: 06-30-2016).
Co-Principal Investigator	**Interactive Projection and Automation for Live Entertainment Performance**, *University of Wisconsin Fall Research Competition*, Principal Investigator: D. Lisowski, Total Costs $105,000 (Start Date: 07-01-2014 End Date: 06-30-2015).

Co-Principal Investigator	**Project Arclight: Analytics and Visualization for the Study of 20th Century Media**, *University of Wisconsin Fall Research Competition*, Principal Investigator: E Hoyt, Total Costs $53,000 (Start Date: 07-01-2014 End Date: 06-30-2015).
Principal Investigator	**Making the Virtual a Cost Effective Reality**, *University of Wisconsin Fall Research Competition*, Principal Investigator: K. Ponto, Total Costs $33,834 (Start Date: 07-01-2014 End Date: 06-30-2015).
Co-Investigator	**Project Arclight: Analytics for the Study of 20th Century Media**, *Digging into Data 2013*, Principal Investigator: E. Hoyt / C. Acland, Total Costs $124,986 (Start Date: 01-31-2014 End Date: 01-31-2016).
Principal Investigator (2016-2018) Co-Principal Investigator (2013-2016)	**vizHOME: A context-based health information needs assessment strategy**, *RO1 PA11199 Agency for Healthcare Research and Quality*, Principal Investigator: P. Brennan / K. Ponto, Total Costs $2,499,343 (Start Date: 09-30-2013 End Date: 09-29-2018).

Funded Projects

Co-Principal Investigator	**A Virtual Tour through Mount Horeb Area History**, *Mount Horeb Historical Society*, Principal Investigator: R. Tredinnick / K. Ponto, Total Costs $23,000 (Start Date: 02-01-2017 End Date: 12-31-2017).
Principal Investigator	**3D Visualization Prototype for Training and Demos**, *Johnson (S.C.) and Sons, Inc*, Principal Investigator: K. Ponto, Total Costs $69,999 (Start Date: 08-01-2015 End Date: 06-30-2016).

Publications and Research

Journal Articles (Peer-Reviewed)

J.21   **Ponto, K.**, Smith, S., Tredinnick, R., "Methods for detecting manipulations in 3D scan data" *Digital Investigation*, (2019) v. 30, pp. 101-107.

J.20   Tredinnick, R., Gill, E., Udelhoven, D., **Ponto, K.**, "Virtual Reality as an Agent of Preservation" *Forum Journal*, (2018) v. 32 n. 1 pp. 22-29. ***Front Cover Article***

J.19   Werner, N., Jolliff, A., Casper, G., Martell, T., **Ponto, K.**, "Home is where the head is: a distributed cognition account of personal health information management in the home among those with chronic illness" *Ergonomics*, (2018) v. 61, n. 8, pp. 1065-1078.

J.18   Chen, K. B., Sesto, M. E., **Ponto, K.**, Leonard, J., Mason, A., Vanderheiden, G., Williams, J., Radwin, R.G, "Use of Virtual Reality Feedback for Patients with Chronic Neck Pain and Kinesiophobia" *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, (2017) v. 25, n. 8, pp. 1240-1248.

J.17   Broecker, M., **Ponto, K.**, Tredinnick, R., Casper, G., Brennan, P. F. , "SafeHOME: Promoting Safe Transitions to the Home" *Studies in health technology and informatics*, (2016) v. 220, p. 51.

J.16   Long, D., Hoyt, E., Tran, A., **Ponto, K.**, Hughes, K., "Who's Trending in 1910s American Cinema: Exploring ECHO ad MHDL at Scale with Arclight" *The Moving Image*, (2016) v. 16, n. 1, pp. 57-81.

J.15   Hughes, K., Hoyt, E., Long, D., **Ponto, K.**, Tran, A., "Hacking Radio History's Data: Station Call Letter, Digitized Magazines, and Scaled Entity Search" *Media Industries Journal*, (2015) 2 (2).

J.14   Brennan, P. F., **Ponto, K.**, Casper, G., Tredinnick, R., Broecker, M., "Virtualizing living and working spaces: Proof of concept for a biomedical space-replication methodology" *Journal of Bioinformatics*, (2015) v. 57, pp. 53-61

J.13   Hoyt, E., **Ponto, K.**, Roy, C., "Visualizing and Analyzing the Hollywood Screenplay with ScripThreads" *Digital Humanities Quarterly*, 8.4 (2014).

J.12   Chen, K., **Ponto, K.**, Tredinnick, R., Radwin, R.G.,, "Virtual Exertions Evoking the Sense of Exerting Forces in Virtual Reality Using Gestures and Muscle Activity" *Human Factors: The Journal of the Human Factors and Ergonomics Society*, (2014) v. 57, n. 4, pp. 658-673.

J.11   **Ponto, K.**, Kohlmann, J., Tredinnick, R., "DSCVR: designing a commodity hybrid virtual reality system" *Virtual Reality*, (2014) pp. 1 - 14.

J.10   Chen, K., Kimmel, R., Bartholomew, A., **Ponto, K.**, Gleicher, M., Radwin, R. , "Manually locating physical and virtual reality objects" *Human Factors*, (2014) v. 56, n. 6, pp. 1163-1176.

J.9   **Ponto, K.**, Gleicher, M., Radwin, R., Shin, H.J., "Perceptual Calibration for Immersive Display Environments" *IEEE Transactions on Visualization and Computer Graphics*, (2013) v. 19, n. 4, pp. 691-700. ***Best Long Paper Nominee***

J.8   Brennan, P.F., **Ponto, K.**, Radwin, R., Kreutz, K., "Envisioning the future of home care: applications of immersive virtual reality" *Studies in health technology and informatics*, (2013) v. 192, n. 1, pp. 599-602.

J.7   **Ponto, K.**, Kohlmann, J., Gleicher, M., "Effective Replays and Summarization of Virtual Experiences." *IEEE Transactions on Visualization and Computer Graphics*, (2012) v. 18 n. 4 pp. 607-616.

J.6   **Ponto, K.**, Doerr, K., Kooker, J., Wypych, T., Kuester, F., "CGLXTouch: A multi-user multi-touch approach for ultra-high-resolution collaborative workspaces" *Future Generation Computer Systems*, (2011) v. 27 n. 6 pp. 649-656.

J.5   DeFanti, T., Acevedo, D., Ainsworth, R., Brown, M., Cutchin, S., Dawe, G., Doerr, K., Johnson, A., Knox, C., Kooima, R., Kuester, F., Leigh, J., Long, L.,Otto, P., Petrovic, V., **Ponto, K.**, Prudhomme, A., Rao, R., Renambot, L., Sandin, D., Schulze, J., Smarr, L., Srinivasan, M., Weber, and P., Wickham, G., "The future of the CAVE" *Central European Journal of Engineering*, (2010). pp. 1-22.

J.4   **Ponto, K.**, Doerr, K., Kuester, F., "Giga-Stack: A Method for Visualizing Giga-pixel Layered Imagery on Massively Tiled Displays" *Future Generation Computer Systems*, (2010) v. 26, n. 5, pp. 693-700.

J.3   **Ponto, K.**, Seracini, M., Kuester, F., "Wipe-Off: an intuitive interface for exploring ultra-large multi-spectral data sets for cultural heritage diagnostics" *Computer Graphics Forum*, (2009) v. 28, n. 8, pp. 2291-2301.

J.2   **Ponto, K.**, Kuester, F., Nideffer, R., Penny, S., "Tangled Reality" *Virtual Reality*, (2008) v. 12 n. 1 pp. 37-45.

J.1   **Ponto, K.**, Kuester, F., Nideffer, R., Penny, S., "Virtual Bounds: a teleoperated mixed reality" *Virtual Reality*, (2006) v. 10 n. 1 pp. 41-47.

Conference Papers (Peer-Reviewed)

C.24   Peer, A., **Ponto, K.**, "Mitigating Incorrect Perception of Distance in Virtual Reality through Personalized Rendering Manipulation" *In proceedings of IEEE Conference on Virtual Reality*, (2019) pp. 244-250.

C.23   Hoonakker, P., Casper, G., Smith, C. A., Tredinnick, R., Werner, N., **Ponto, K.**, "Healthcare in a Virtual Environment: Workload and Simulation Sickness in a 3D CAVE" *Congress of the International Ergonomics Association*, (2018) pp. 281-289.

C.22   Smith, C. A., Casper, G., Tredinnick, R., **Ponto, K.**, "Virtualizing Homes to Study Health Decisions" *AMIA 2017: Workshop on Interactive Systems in Healthcare (WISH)*, (2017) In Print.

C.21   **Ponto, K.**, Tredinnick, R., Casper, G., "Simulating the Experience of Home Environments" *International Conference on Virtual Rehabilitation 2017*, (2017) pp. 1-9.

C.20   Peer, A., **Ponto, K.**, "Evaluating Perceived Distance Measures In Room-Scale Spaces Using Consumer-Grade Head Mounted Displays" *3D User Interfaces (3DUI), 2017 IEEE Symposium on*, (2017) pp. 83–86.

C.19   **Ponto, K.**, Lisowski, D., Fan, S., "Designing Extreme 3D User Interfaces for Augmented Live Performances" *3D User Interfaces (3DUI), 2016 IEEE Symposium on*, (2016) pp. 169-172.

C.18   Broecker, M., **Ponto, K.**, "Transient Motion Groups for Interactive Visualization of Time-Varying Point Clouds" *In proceedings of IEEE Aerospace Conference*, (2016) pp. 1-10.

C.17   Subramaniam, N.A., **Ponto, K.**, "Hierarchical Plane Extraction (HPE): An Efficient Method For Extraction Of Planes From Large Pointcloud Datasets" *Proceedings of ACADIA 2014*, (2014) pp. 627-636.

C.16   Hoyt, E., Hughes, K., Long, D., Tran, A., **Ponto, K.**, "Scaled Entity Search: A Method for Media Historiography and Response to Critiques of Big Humanities Data Research" *IEEE Big Humanities Data workshop*, (2014) pp. 51-59.

C.15   Chen, K., **Ponto, K.**, Sesto, M., Radwin, R.G.,, "Influence of altered visual feedback on neck movement for a virtual reality rehabilitative system" *Proceedings of the Human Factors and Ergonomics*, (2014) pp. 693-697.

C.14   Radwin, R.G., Chen, K., **Ponto, K.**, Tredinnick, R, "Virtual Exertions Physical Interactions in a Virtual Reality CAVE for Simulating Forceful Tasks" *Proceedings of the Human Factors and Ergonomics*, (2013) pp. 967-971.

C.13   Brennan, P. F., Nicolalde, D. F., **Ponto, K.**, Kinneberg, M., Freese, V., Paz, D, "Cultivating Imagination: Development and Pilot Test of a Therapeutic Use of an Immersive Virtual Reality CAVE" *In AMIA Annual Symposium Proceedings*, (2013) vol. 2013, p. 135.

C.12   Kimball, J., **Ponto, K.**, Wypych, T., Kuester, F., "RSVP: Ridiculously Scalable Video Playback on Clustered Tiled Displays" *IEEE ISM 2013*, (2013) pp. 9-16.

C.11   Huynh, A., **Ponto, K.**, Yu-Min, A., Kuester, F., "Visual analytics of inherently noisy crowdsourced data on ultra high resolution displays" *In proceedings of IEEE Aerospace Conference*, (2013) pp. 1-8.

C.10   **Ponto, K.**, Gleicher, M., Radwin, R., Shin, H.J., "Perceptual Calibration for Immersive Display Environments" *In proceedings of IEEE Conference on Virtual Reality*, (2013) Printed in TVCG.

C.9   **Ponto, K.**, Tredinnick, R., Bartholomew, A., Roy, C., Szafir, D., Greenheck, D., Kohlmann, J., "SculptUp: A Rapid, Immersive 3D Modeling Environment" *3D User Interfaces (3DUI), 2013 IEEE Symposium on*, (2013) pp. 199-200.

C.8   **Ponto, K.**, Shin, H.J., Kohlmann, J., Gleicher, M., "Online Real-Time Presentation of Virtual Experiences for External Viewers" *Proceedings of the 18th ACM Symposium on Virtual Reality Software and Technology*, (2012) pp. 45-52.

C.7   **Ponto, K.**, Kimmel, R., Kohlmann, J., Bartholomew, A., Radwin, R., "Virtual Exertions: a user interface combining visual information, kinesthetics and biofeedback for virtual object manipulation" *3D User Interfaces (3DUI), 2012 IEEE Symposium on*, (2012) pp. 85-88.

C.6   **Ponto, K.**, Kohlmann, J., Gleicher, M., "Effective Replays and Summarization of Virtual Experiences." *In proceedings of IEEE Conference on Virtual Reality.*, (2012) Printed in TVCG.

C.5   Wypych, T., Yamaoka, S., **Ponto, K.**, Kuester F., "System for Inspection of Large High-Resolution Radiography Datasets" *In proceedings of IEEE Aerospace Conference*, (2011) pp. 1-9.

C.4   Yamaoka, S., **Ponto, K.**, Doerr, K., Kuester, F., "Interactive Image Fusion in Distributed Visualization Environments" *In proceedings of IEEE Aerospace Conference*, (2011) pp. 1-7.

C.3   Olsen, M.J., **Ponto, K.**, Kimball, J., Seracini, M., Kuester, F., "2D open-source editing techniques for 3D laser scans" *In proceedings of CAA 2010*, (2010) p. 47-50.

C.2   **Ponto, K.**, Kuester, F, "DIGI-Vis: Distributed Interactive Geospatial Information Visualization" *In proceedings of IEEE Aerospace Conference*, (2010) pp. 1-7.

C.1   **Ponto, K.**, Wypych, T., Doerr, K., Yamaoka, S., Kimball, J., Kuester, F., "VideoBlaster: a distributed, low-network bandwidth method for multimedia playback on tiled display systems" *In proceeding of IEEE International Symposium on Multimedia*, (2009) pp. 201-206.

Conference Poster Papers (Peer-Reviewed)

CPP.10   Peer, A., Ullich, P., **Ponto, K.**, "Vive Tracking Alignment and Correction Made Easy" *In proceedings of IEEE Conference on Virtual Reality*, (2018) pp. 653-654.

CPP.9   Peer, A., **Ponto, K.**, "Preliminary Exploration: Perceived Egocentric Distance Measures in Room-Scale Spaces using Consumer-Grade Head Mounted Displays" *In proceedings of IEEE Conference on Virtual Reality*, (2017) pp. 275-276.

CPP.8   Tredinnick, R., Boettcher, B., Smith, S., Solovy, S., **Ponto, K.**, "Uni-CAVE: A Unity3D Plugin for Non-head Mounted VR Display Systems" *In proceedings of IEEE Conference on Virtual Reality*, (2017) pp. 393-394.

CPP.7   Tredinnick, R., Broecker, M. **Ponto, K.**, "Progressive Feedback Point Cloud Rendering for Virtual Reality Display" *In proceedings of IEEE Conference on Virtual Reality*, (2016) pp. 301-302.

CPP.6   Peer, A., **Ponto, K.**, "Perceptual Space Warping: Preliminary Exploration" *In proceedings of IEEE Conference on Virtual Reality*, (2016) pp. 261-262.

CPP.5   Tredinnick, R., Broecker, M. **Ponto, K.**, "Experiencing Interior Environments: New Approaches for the Immersive Display of Large-Scale Point Cloud Data" *In proceedings of IEEE Conference on Virtual Reality*, (2015) pp. 297-298.

CPP.4   Gill, E., Brennan,P., **Ponto, K.**, Tredinnick, R., Broecker, M., Chen, K., "The Living Environments Laboratory" *In proceedings of IEEE Conference on Virtual Reality*, (2015) n.p.

CPP.3   **Ponto, K.**, Chen, K., Tredinnick, R., Radwin, R., "Assessing Exertions: How an increased level of immersion unwittingly leads to more natural behavior" *IEEE Conference on Virtual Reality 2014*, (2014) pp 107-108. ***Best Poster Honorable Mention***

CPP.2   Nicolalde, D.F., Freese, V., **Ponto, K.**, Tredinnick, R., Kinneberg, M. , "Applying Kanban to Health-care via Immersive 3D Virtual Reality" *3D User Interfaces (3DUI), 2014 IEEE Symposium on*, (2014) 149-150.

CPP.1   Tredinnick, R. **Ponto, K.**, "Say It To See It: A Speech Based Immersive Model Retrieval System" *3D User Interfaces (3DUI), 2013 IEEE Symposium on*, (2014) pp. 181-182.

Conference Posters (Lightly Peer-Reviewed)

CP.6   Peer, A., **Ponto, K.**, "Perceptual Space Warping: Preliminary Exploration" *8th Annual McPherson Eye Research Institute Vison Science Poster Session*, Madison, Wisconsin. October 4, 2016.

CP.5   Kelly, C., Soo, X. Y., Tandifor, P., Xiong, K., **Ponto, K.**, "Creating Virtual Environments: Modeling Change In 3D" *Undergraduate Research Symposium*, Madison, Wisconsin. April 14, 2016.

CP.4   Sylvestre, J., **Ponto, K.**, "TEB, A Thermoelectric Band for Personal Body Temperature Regulation" *Undergraduate Research Symposium*, Madison, Wisconsin. April 16, 2015.

CP.3   Broecker, M., Hernandez, E., Nelson, M., Tucker, C., **Ponto, K.**, "Online Point Cloud Exploration" *Undergraduate Research Symposium*, Madison, Wisconsin. April 9, 2015.

CP.2   **Ponto, K.**, Kohlmann, J., Gleicher, M., "Effective Replays and Summarization of Virtual Experiences." *MathBio 4.*, Madison, Wisconsin. October 18-19, 2012.

CP.1   **Ponto, K.**, Roy, C., Tredinnick, R., "Volumetric visualization of dynamic time varying data" *WARF Discovery Challenge Poster Symposium*, Madison, Wisconsin. May 23, 2012. ***Best Poster Winner***

Workshops (Lightly Peer-Reviewed)

W.2 Lisowski, D., Fan, S., **Ponto, K.**, "Behind the Curtain: ALICE Project" *Art + Scholarship Mellon Workshop*, Madison, Wisconsin. May 11th, 2015.

W.1 Szafir, D., **Ponto, K.**, "Panoramic Imagery of Physical Locations inside Immersive Environments" *Midgraph 2012*, Chicago, Illinois, November 30-December 2, 2012.

Conference Demonstrations (Invited or Peer-Reviewed)

D.9 **Ponto, K.**, Tredinnick, R.,, "3D Scanning and VR technology" *Hyper Innovation Summit*, Madison, WI. November 15, 2018.

D.8 **Ponto, K.**, Tredinnick, R., Casper, G., "Simulating the Experience of Home Environment" *Business Best Practices & Emerging Technologies Conference*, Madison, WI. September 24, 2018.

D.7 **Ponto, K.**, Tredinnick, R., Casper, G., "Simulating the Experience of Home Environment" *International Conference on Virtual Rehabilitation 2017*, Montreal, Canada. June 22, 2017.

D.6 **Ponto, K.**, Tredinnick, R., Chase, A., Rush, M., Gagnon, D., Bravo, S., "Polar Virtual Reality Exhibit Prototype" *IceCube Collaboration meeting*, Madison, May 2-6, 2017.

D.5 **Ponto, K.**, "vizHOME: Using LiDAR to Create Point Cloud Representations of Home Interiors" *Medicine Meets Virtual Reality*, Los Angeles, CA. April 7-9, 2016.

D.4 **Ponto, K.**, Tredinnick, R., Bartholomew, A., Roy, C., Szafir, D., Greenheck, D., Kohlmann, J., "SculptUp: A Rapid, Immersive 3D Modeling Environment" *3D User Interfaces (3DUI) Contest*, Orlando, FL. March 16-17, 2013.

D.3 Kuester, F., **Ponto, K.**, Yamaoka, S., Doerr, K., "HIPerSpace Nano" *NVISION 2008*, San Jose, CA. August 25-27, 2008.

D.2 Da Costa, B. Hazegh, C. **Ponto, K.**, "Pigeon Blog" *Ubicomp 2006, the Eighth International Conference of Ubiquitous Computing*, Irvine, California. September 17-21, 2006.

D.1 Da Costa, B., Hazegh, C., **Ponto, K.**, "Pigeon Blog" *Inter-Society for Electronic Arts Annual Symposium*, San Jose, California. August 7-13, 2006.

Book Chapters

B.4 Tredinnick, R. and **Ponto, K.**, "UniCAVE: A Distributed Rendering System for Unity3D" *VR Gems*, CRC Press, (2018).

B.3 Hoyt, E., Tran, A., Long, D., Hughes, K., **Ponto, K.**, "Searching, Mining, and Interpreting Media History's Big Data" *Routledge Companion to Media Studies and the Digital Humanities*, ed. Jentery Sayers The Routledge Companion to Media Studies and Digital Humanities, pp. 433-442.

B.2 He, Z., **Ponto, K.**, Kuester, F., "Collaborative Visual Analytics Environment for Imaging Genetics" *Collaborative Computational Technologies for Biomedical Research*, (2011) pp. 467-490.

B.1 Seracini, M., Kuester, F., De Vita, M., Olsen, M.J., **Ponto, K.**, Kimball, J., Corazzini, S., and Bonini, C., "Alla riscoperta di Palazzo Medici Riccardi, Campagna di indagini diagnostiche per lo studio e la caratterizzazione dell' evoluzione architettonica del monumento [In English: "Rediscovering Palazzo Medici Riccardi, Diagnostic Investigation to Study and Characterize the Monument's Architectural Evolution"]" *(2010) pp. 241-249.*,

Thesis and Dissertation

T.2   **Ponto, K.**, "Building a foundation for human centric multi-dimensional data analysis" *Ph.D. Dissertation*, University of California, San Diego. 2010.

T.1   **Ponto, K.**, "Entangled Realities" *Master's Thesis*, The University of California, Irvine. 2006.

Exhibitions

E.3   **Protean Guise**, "WikiWander" and "Intertangle" *Ruth Davis Design Gallery. Madison, Wisconsin*, January 22 - February 21, 2016

E.2   **Umweltforshow Exhibition**, "Tangled Reality" *Beall Center for Art and Technology. Irvine, California*, May 19th - May 27th, 2006

E.1   **Eccentric Orbits Exhibition**, "Virtual Bounds" *Calit2 Media Arts Lab. Irvine, California*, May 26th - June 4th, 2005.

Performances

P.1   **Producer / Technical Lead**, "ALICE" *This performance piece showcased the integration of video projection, entertainment automation, motion capture, and virtual reality to create a unique theater performance (https://blogs.discovery.wisc.edu/alice/).*, Madison, WI. May 13-15th and July 1st, 2015.

Professional Activities and Service

Appointments

2015 - Present	**Affiliate Faculty**, *Industrial Systems Engineering*, University of Wisconsin - Madison.
2014 - Present	**Affiliate Faculty**, *Arts Institute*, University of Wisconsin - Madison.
2014 - Present	**Affiliate Faculty**, *Department of Computer Science*, University of Wisconsin - Madison.
2014 - Present	**WID Frontier Fellow Mentor**, *Wisconsin Institute for Discovery*, University of Wisconsin - Madison.
2013 - Present	**Faculty Trainer**, *Computation and Informatics in Biology and Medicine (CIBM)*, University of Wisconsin - Madison.

Professional and Academic Memberships / Affiliations

2017 - Present	**Member of International Society for Virtual Rehabilitation (ISVR)**.
2017 - Present	**Environmental Design Research Association (EDRA)**.
2014 - Present	**Internet of Things Lab**, *University of Wisconsin - Madison*.
2014 - Present	**McPherson Eye Research Institute**, *University of Wisconsin - Madison*.
2014 - Present	**UW Institute for Clinical and Translational Research**, *University of Wisconsin - Madison*.
2013 - Present	**Computation and Informatics in Biology and Medicine**, *University of Wisconsin - Madison*.
2009 - Present	**Member of Institute of Electrical and Electronics Engineers (IEEE)**.

Invited Speaker

IS.39   **Ponto, K.**, "Simulating Real-World Environments" *UMC Bethany*, Madison, WI. February 17, 2019.

IS.38   **Ponto, K.**, "Analyzing the Impact of Virtual Reality and 3D Capture Technology on Crime Scene Investigation" *Department of Justice*, Washington, DC. November 14th 2018.

IS.37   **Ponto, K.**, "An Illuminating Look Inside the Wisconsin Institute for Discovery" *Bascom Hill Society*, Madison, WI. July 24th 2018.

IS.36   **Ponto, K.**, "Illuminating Discovery Hub Overview" *First Annual WID Symposium*, Madison, WI. July 13th 2018.

IS.35   **Ponto, K.**, Tredinnick, R., "Point Cloud Data in Virtual and Augmented Reality" *WARF Accelerator Program*, Madison, WI. May 19th 2018.

IS.34   **Ponto, K.**, "Simulating the Experience of real-world spaces" *Brown Center for Computation and Visualization Seminar*, Providence, RI. November 9th 2017.

IS.33   Gustafson, D., Safran, C., Mendonca, E., **Ponto, K.**, "A National Web Conference on Use of Health IT for Aging Adults" *AHRQ*, Web Conference. July 17th 2017.

IS.32   **Ponto, K.**, "Using Virtual Reality to Simulate Real World Environments" *ECE Faculty Seminar*, Iowa City, IA. April 4th 2017.

IS.31   **Ponto, K.**, "Simulating Real World Environments Using Virtual Reality" *Internet of Things Industry Event*, Madison, Wisconsin. March 7th 2017.

IS.30   **Ponto, K.**, "Experiences in Wordpress" *Active Teaching Lab*, Madison, Wisconsin. December 2nd 2016.

IS.29   **Ponto, K.**, "Simulating reality: Using virtual reality to explore the complexities of the world around us" *Chaos and Complex Systems Seminar*, Madison, Wisconsin. November 8th 2016.

IS.28   **Ponto, K.**, "The Living Environments Laboratory" *Madison VR Meetup*, Madison, Wisconsin. June 22nd 2016.

IS.27   **Ponto, K.**, "Simulated Space for Real World Places" *Internet2 Collaboration SIG*, Chicago, Illinois. May 17th 2016.

IS.26   **Ponto, K.**, "New techniques and opportunities in three-dimensional and immersive visualizations" *MIR Medical Engineering*, Madison, Wisconsin. April 19th 2016.

IS.25   **Ponto, K.**, "Tailoring Virtual Reality: methods to improve simulated experiences through perception, presentation, novel interface modalities" *UCSD Guest Lecture*, San Diego, California. April 11th 2016.

IS.24   **Ponto, K.**, "Is Virtual Reality the Next Generation of Media?" *Big Ideas for Busy People*, Madison, Wisconsin. October 22nd 2015.

IS.23   **Ponto, K.**, "Immersive visualizations: 'Real world' insights via simulated environments" *McPherson ERI Seminar*, Madison, Wisconsin. October 13th, 2015.

IS.22   **Ponto, K.**, "Behind the Technology" *An Evening in the CAVE*, Madison, Wisconsin. August 28th 2015.

IS.21   Lisowski, D., Fan, S., **Ponto, K.**, "ALICE: Augmented Live Interactively Controlled Environment" *Collaborative Brainstorming Session at Electronic Theatre Controls*, Middleton, Wisconsin. April 30th 2015.

IS.20   **Ponto, K.**, "Simulating Experiences: How virtual reality technologies are reshaping our perception of space and self" *IEEE Faculty Talk*, Madison, Wisconsin. April 22th 2015.

IS.19   **Ponto, K.**, "Virtual Reality" *Theater Technology*, Madison, Wisconsin. April 21st 2015.

IS.18   **Ponto, K.**, "Seeing Reality Through Virtual Eyes" *MERI at a Glance*, Madison, Wisconsin. March 20th 2015.

IS.17   Lisowski, D. and **Ponto, K.**, "ALICE: Augmented Live Interactively Controlled Environment" *Arts Fall Institute Summit*, Madison, Wisconsin. September 29th 2014.

IS.16   **Ponto, K.**, "Virtual Reality" *4H Youth Conference*, Madison, Wisconsin. June 24th 2014.

IS.15   **Ponto, K.** and Broecker, B., "Virtual Reality" *University of Wisconsin Math Club*, Madison, Wisconsin. April 28th 2014.

IS.14   **Ponto, K.**, "The Virtual Reality Wave" *Wisconsin Festival of Ideas*, Madison, Wisconsin. April 19th 2014.

IS.13   **Ponto, K.**, "Virtual Eye" *Technology Forum: Image Quantification*, Madison, Wisconsin. April 14th 2014.

IS.12   **Ponto, K.**, "How technology becomes new, renewed, and integrated into society" *SoundWaves*, Madison, Wisconsin. December 11th 2013.

IS.11   **Ponto, K.**, "Simulated Presence: Utilizing the Power of Immersive Virtual Reality Systems" *School of Human Ecology Scholarly Seminar*, Madison, Wisconsin. May 10th 2013.

IS.10   **Ponto, K.**, "Experiencing Data: How new technologies are reshaping the divide between the physical and digital worlds" *Wisconsin Institute for Discovery Seminar*, Madison, Wisconsin. April 12th 2013.

IS.9   **Ponto, K.**, "Rethinking 3D" *Computation and Informatics in Biology and Medicine Seminar*, Madison, Wisconsin. October 16th 2012.

IS.8   **Ponto, K.**, "Experience Design: Exploring the Medium of Virtual Reality" *Design Studies Seminar*, Madison, Wisconsin. May 2nd 2012.

IS.7   **Ponto, K.**, "The Experience Model: A New Approach to Virtual Reality" *Wisconsin Institute for Discovery Seminar*, Madison, Wisconsin. May 1st 2012.

IS.6   **Ponto, K.**, "Effective Replays And Summarization Of Virtual Experiences" *Computation and Informatics in Biology and Medicine Seminar*, Madison, Wisconsin. October 11th 2011.

IS.5   **Ponto, K.**, "Disciplinary Fusion" *Media Art and Technology Seminar*, Santa Barbara, California. April 19th 2011.

IS.4   **Ponto, K.**, "Building a foundation for human centric multi-dimensional data analysis" *University of Illinois - Chicago*, Chicago, Illinois. July 21st 2010.

IS.3   **Ponto, K.**, "Building a foundation for human centric multi-dimensional data analysis" *University of California, San Diego Board of Trustees*, San Diego, California. March 5th 2010.

IS.2   **Ponto, K.**, "GreenLight Minority-Serving Institutions CyberInfrastructure Coalition" *(MSI-CIEC) Workshop*, San Diego, California. June 10th 2010.

IS.1   **Ponto, K.**, "MegaPixel Madness: technologies for ultra-high resolution display systems." *Iowa Institute for Biomedical Imaging seminar*, Iowa City, Iowa. October 8th, 2009.

Conference Presentations

PR.14   **Ponto, K.**, Cors, R., Gagnon, D., Madsen, J., Tredinnick, R., "Discover IceCube VR Communicating complex Astrophysics Experientially " *Make Play Learn*, Madison, Wisconsin. August 13, 2018.

PR.13   **Ponto, K.**, Tredinnick, R., Smith, S., "Impact of Virtual Reality and 3D Capture Technology on Crime Scene Investigations" *Wisconsin Association for Identification*, Elkhart Lake, Wisconsin. March 15, 2018.

PR.12   **Ponto, K.**, Tredinnick, R., Casper, G., "Simulating the Experience of Home Environments" *International Conference on Virtual Rehabilitation 2017*, Montreal, Canada. June 20-22, 2017.

PR.11   **Ponto, K.**, "A Retrospective on the Field of Virtual Reality" *Ethics in Investigational & Interventional Uses of Immersive Virtual Reality (e3iVR)*, Madison, Wisconsin. April 26-27, 2017.

PR.10   **Ponto, K.**, Lisowski, D., Fan, S., "Designing Extreme 3D User Interfaces for Augmented Live Performances" *3D User Interfaces (3DUI), 2016 IEEE Symposium on*, Greenville, SC. March 19-20, 2016.

PR.9   Gill, E., Brennan, P., **Ponto, K.**, Tredinnick, R., Broecker, M., Chen, K., "The Living Environments Laboratory" *IEEE Conference on Virtual Reality 2015*, Arles, France. March 23-27, 2015.

PR.8   Subramaniam, N.A., and **Ponto, K.**, "Hierarchical Plane Extraction (HPE): An Efficient Method For Extraction Of Planes From Large Pointcloud Datasets" *ACADIA 2014*, Los Angeles, CA. October 23-25, 2014.

PR.7   **Ponto, K.**, Gleicher, M., Radwin, R., and Shin, H.J., "Perceptual Calibration for Immersive Display Environments" *IEEEVR 2013*, Orlando, Florida. March 16-20, 2013.

PR.6   **Ponto, K.**, Shin, H.J., Kohlmann, J., and Gleicher, M., "Online Real-Time Presentation of Virtual Experiences for External Viewers" *The 18th ACM Symposium on Virtual Reality Software and Technology*, Toronto, Canada, December 10-12, 2012.

PR.5   **Ponto, K.**, "Experience Design: Exploring the Medium of Virtual Reality" *Midwest Fiber Arts Educators Network (MFEAN) 2012*, Madison, Wisconsin. November 8-11, 2012.

PR.4   **Ponto, K.**, Kimmel, R., Kohlmann, J., Bartholomew, A., and Radwin, R., "Virtual Exertions: a user interface combining visual information, kinesthetics and biofeedback for virtual object manipulation" *IEEE Symposium on 3D User Interfaces 2012*, Orange County, California, March 4-5, 2012.

PR.3   **Ponto, K.**, Kohlmann, J., and Gleicher, M., "Effective Replays and Summarization of Virtual Experiences" *IEEE VR 2012*, Orange County, California. March 4-8, 2012.

PR.2   **Ponto, K.** and Kuester, F., "DIGI-Vis: Distributed Interactive Geospatial Information Visualization" *IEEE Aerospace Conference*, Big Sky, Montana. March 6-13, 2010.

PR.1   **Ponto, K.** Wypych, T. Doerr, K. Yamaoka, S. Kimball, J. Kuester, F., "VideoBlaster: a distributed, low-network bandwidth method for multimedia playback on tiled display systems" *IEEE International Symposium on Multimedia*, San Diego, California. December 14-16, 2009.

Invited Panelist

2019   **Virtual Dimesnions**, *Dimensions of Material Culture*, Madison, WI.

2018   **How is Technology Changing us?**, *Cap Times Idea Fest*, Madison, WI.

What Color is The _____, *Wisconsin Science Festival*, Madison, WI.

Illuminating Discovery, *WID Symposium*, Madison, WI.

2017   **TrustLive on Tech**, *PastForward*, Chicago, Illinois.

Living on Mars, *Mars Invades Madison*, Wisconsin Science Festival, Madison, WI.

Virtual Reality Campus IT Architecture, *Collaboration SIG*, Internet2 Conference, San Francisco, CA.

Improving Forensic Science Policy Panel, *Catalysts for Science Policy*, Madison, WI.

Use of Health IT for Aging Adults, *Agency for Healthcare Research and Quality (AHRQ)*, National Web Conference.

2016   **Collaboration Challenges to setting up VR systems**, *Collaboration SIG*, Internet2 Conference, Chicago, IL.

Lo & Behold: Reveries of the Connected World, *Wisconsin Film Festival*, Film by Werner Herzog, Madison, WI.

2015   **Panel on Design**, *Psych 202*, University of Wisconsin - Madison, Madison, WI.

Invited Reviewer

2019   **IEEE Virtual Reality Conference; VIRE; International Journal of Human-Computer Studies; Applied Ergonomics; International Symposium on Mixed and Augmented Reality**.

2018   **IEEE Consumer Electronics Magazine; ACM MMSys MMVE; International Journal of Human-Computer Studies; ASME Press; NIST; NSF; IEEE Virtual Reality Journal**.

2017   **Applied Ergonomics; UW2020, PLOS ONE; International Journal of Human-Computer Studies; IEEE Virtual Reality Journal; IEEE Virtual Reality Conference**.

2016   **IEEE Transactions on Visualization and Computer Graphics; Computer Methods and Programs in Biomedicine; RO-MAN 2016; IEEE Virtual Reality; CHI; Building and Environment; Applied Ergonomics; 3DUI**.

2015   **IEEE Virtual Reality; Computers and Graphics**.

2014   **3-Minute Futures Flash Fiction Contest; International Journal of Human-Computer Studies; ACM Multimedia Systems Conference (MMSys)**.

2012   **ACM Transactions on Graphics**.

2011   **Computer Graphics Forum**.

2006   **Ubicomp 2006, the Eighth International Conference of Ubiquitous Computing**.

Professional Committees

2018 - Present   **Subject Matter Expert**, *National Institute of Standards & Technology's (NIST)*, Public Safety Communication Research (PSCR) Division, Tech to Protect Challenge.

Conference Chairs and Committees

2018   **Web Chair & Conference Program Committee Member**, *IEEEVR*, IEEE Conference on Virtual Reality 2018, Reutlingen, Germany. March 18-22, 2018.

Technical Program Committee, *MMVE Workshop*, ACM MMSys 2018, Amsterdam, The Netherlands. June 12-15, 2018.

2017   **Web Chair & Doctoral Consortium Mentor**, *IEEEVR*, IEEE Conference on Virtual Reality 2016, Los Angles, CA. March 18-22, 2017.

Program Committee, *3DUI*, 3D User Interfaces (3DUI), 2016 IEEE Symposium on, Los Angles, CA. March 18-20, 201.

Advisory Panel, *e3iVR*, Ethics in Investigational & Interventional Uses of Immersive Virtual Reality, Madison, WI. April 26-27, 2017.

2016   **Web Chair**, *IEEEVR*, IEEE Conference on Virtual Reality 2016, Greenville, SC. March 19-23, 2016.

Publicity Chair, *3DUI*, 3D User Interfaces (3DUI), 2016 IEEE Symposium on, Greenville, SC. March 19-20, 2016.

AR Contest Selection Committee, *Internet2.*

2015   **Publicity Chair**, *3DUI*, 3D User Interfaces (3DUI), 2015 IEEE Symposium on, Arles, France. March 23-25, 2015.

2012   **Session Chair**, *Apply yourself (Systems Track: Applications)*, The 18th ACM Symposium on Virtual Reality Software and Technology, Toronto, Canada, December 10-12, 2012.

Current Academic Committees

2013 - Present   **Faculty Senate**, *Representative of the Design Studies Department*, University of Wisconsin - Madison.

2013 - Present   **Graduate Committee**, *Design Studies Department*, University of Wisconsin - Madison.

2012 - Present   **Interior Architecture Faculty Committee**, *School of Human Ecology*, University of Wisconsin - Madison.

2012 - Present   **Textile Fashion Design Faculty Committee**, *School of Human Ecology*, University of Wisconsin - Madison.

2012 - Present   **Wisconsin Institute for Discovery Faculty Committee**, *Wisconsin Institute for Discovery*, University of Wisconsin - Madison.

2012 - Present   **School of Human Ecology Faculty and Staff Committee**, *School of Human Ecology*, University of Wisconsin - Madison.

Teaching

Mentored Student Awards

2016   **MFA Project Award**, *Jessica Frantal*,
Mentored the proposal for Frantal's MFA exhibition.,
School of Human Ecology.
Total Award: $2,000

2015   **Star Award**, *Hyo-Jeong Kang*,
Mentored the proposal for summertime academic research (STAR) project focused on research of virtual technology in retail environments.,
School of Human Ecology.
Total Award: $3,000

2015   **Most Technically Challenging Hack**, *Jessica Frantal*,
Student used learned skills in technology to win this award.,
Kent State Fashion/Tech Hackaton.

2015   **MFA Qualifier Show Funding Award**, *Jessica Frantal*,
Mentored the proposal for the funding of Frantal's 2nd year MFA Qualifier Show.,
Design Studies Graduate Scholarship.
Total Award: $5,561

2014   **Show Stopper**, *Alix Ambur*,
EL Dress (Originally developed in DS 501: Wearable Computing Fall 2014),
REMIX: Design and Fashion Show.
May 10, 2014. Madison, WI

2014   **Honorable Mention**, *Jessica Frantal*,
Robe a la Foudre (Originally developed in DS 501: Wearable Computing Fall 2014),
Costume-Con 2014.
April 25-28, 2014. Toronto, Canada.

Courses

Fall Semester 2017	**Instructor**, *DS 501: Interior Design V*, University of Wisconsin - Madison. Developed a course for Interior Architecture students teaching the concepts of digital images, ray tracing, interactive computer graphics and virtual reality.
Spring Semester 2017	**Instructor**, *DS 501: Wearable Technology*, University of Wisconsin - Madison. https://blogs.discovery.wisc.edu/wearable2016/ Co-Developed and taught a course on wearable technologies for students in Computer Science, Textile and Apparel Design, Art, Electrical and Computer Engineering. The class taught the basics of electronics, computing and design. Final projects were open to the public.
Fall Semester 2016	**Instructor**, *DS/CS 579: Virtual Reality*, University of Wisconsin - Madison. https://blogs.discovery.wisc.edu/vr2016/ The developed course was revamped for its new cross-listing and broader audience.
Spring Semester 2016	**Instructor**, *DS 501: Wearable Technology*, University of Wisconsin - Madison. https://blogs.discovery.wisc.edu/wearable2016/ Co-Developed and taught a course on wearable technologies for students in Computer Science, Textile and Apparel Design, Art, Electrical and Computer Engineering. The class taught the basics of electronics, computing and design. Final projects were open to the public.
Fall Semester 2015	**Instructor**, *DS 501: Design in Virtual Reality*, University of Wisconsin - Madison. https://blogs.discovery.wisc.edu/vr2015/ Developed a curriculum for Virtual Reality for both students in Interior Architecture, Education Math, and Computer Science. The class not only focused VR technologies, but also the theories behind perception and presence and discussed the ethical issues involved in VR technologies.
Fall Semester 2014	**Instructor**, *DS 501: Wearable Technology*, University of Wisconsin - Madison. https://blogs.discovery.wisc.edu/wearable14/ Developed a curriculum for wearable technologies for students in Computer Science, Textile and Apparel Design, Art, Electrical and Computer Engineering. The class taught the basics of electronics, computing and design. Final projects were open to the public.
Spring Semester 2014	**Instructor**, *DS 501: Design in Virtual Reality*, University of Wisconsin - Madison. https://blogs.discovery.wisc.edu/designinvr-14/ Developed a curriculum for Virtual Reality for both students in Textile and Apparel Design, Interior Design, Education and Computer Science. The class not only focused VR technologies, but also the theories behind perception and presence and discussed the ethical issues involved in VR technologies.
Fall Semester 2013	**Instructor**, *DS 501: Wearable Computing*, University of Wisconsin - Madison. https://blogs.discovery.wisc.edu/wearablecomputing-13/ Developed a curriculum for wearable technologies for students in Computer Science, Textile and Apparel Design, Industry Engineering and BioMedical Engineering. The class taught the basics of electronics, computing and design. Final projects were open to the public. The class was featured on Wisconsin News (http://www.news.wisc.edu/22403) and Wisconsin Public Radio (http://www.wpr.org/uw-students-sew-solder-and-sync-build-wearable-computing).
Spring Semester 2013	**Instructor**, *DS 501: Design in Virtual Reality*, University of Wisconsin - Madison. https://blogs.discovery.wisc.edu/ds501/ Developed a curriculum for Virtual Reality for both Design Studies and Computer Science students. The class not only focused VR technologies, but also the theories behind perception and presence and discussed the ethical issues involved in VR technologies. Student's final projects were open to the public and were showcased at the Wisconsin Institute for Discovery.

Spring Semester **Instructor**, *CS 638: Projects in Virtual Reality*, University of Wisconsin - Madison.
2011 http://graphics.cs.wisc.edu/WP/virtualreality11/
Developed a curriculum for Virtual Reality, which was the first time the topic had been taught at UW-Madison. The class not only focused VR technologies, but also the theories behind perception and presence. Student's final projects were open to the public and were showcased at the Wisconsin Institute for Discovery.

Independent Studies

2013-Present **Instructor**, *DS 299/699/990/999 and COMP SCI 899*, University of Wisconsin - Madison.
https://blogs.discovery.wisc.edu/projects/
I have worked with students from Design Studies, Art, Zoology, Electrical and Computer Engineering and Computer science. Projects have ranged from scientific experimentation, to artist renderings, new methods of interaction and new means of data collection and visualization.

Primary Advised Terminal Degree Students

August 2020 **Doctor of Philosophy**, *Correcting Distance Misperceptions in Augmented and Virtual Reality*, Alex
(expected) Peer, Department of Computer Sciences.
University of Wisconsin - Madison

August 2019 **Doctor of Philosophy**, *Designing Virtual Reality Marketplaces*, Hyojeong Kang, Department of Design Studies.
University of Wisconsin - Madison

August 2016 **Master's of Fine Arts**, *Systema Technaturæ*, Jessica Frantal, Department of Design Studies.
University of Wisconsin - Madison

Degree Committees

December 2019 **Doctor of Philosophy**, *Demonstrating the Efficacy and Determining the Effective Dose of Optokinetic*
(expected) *Stimulation as an Intervention for Moderate Visual Vertigo*, Colin R. Grove, Institute for Clinical and Translational Research.
University of Wisconsin - Madison

September 2016 **Doctor of Philosophy**, *Effective Directed Gaze For Character Animation*, Tomislav Pejsa, Department of Computer Sciences.
University of Wisconsin - Madison

July 2016 **Doctor of Philosophy**, *Designing Socially Contingent Gaze Behaviors For Embodied Agents*, Sean Andrist, Department of Computer Sciences.
University of Wisconsin - Madison

June 2016 **Doctor of Philosophy**, *Engaging Emerging Adults in the Design Process of Technology Driven Health Interventions*, Daniel Nicolalde, Department of Industrial and Systems Engineering.
University of Wisconsin - Madison

August 2015 **Master's of Science**, *Learning to program using online forums: A comparison of links posted on Reddit and Stack Overflow*, Caroline Hardin, Department of Curriculum and Instruction.
University of Wisconsin - Madison

August 2015   **Doctor of Philosophy**, *Design and assessment of a virtual reality rehabilitation system for individuals with chronic pain*, Karen Bo-Ru Chen, Department of Biomedical Engineering.
University of Wisconsin - Madison

August 2015   **Doctor of Philosophy**, *Improving Visual Statistics*, Michael A. Correll, Department of Computer Sciences.
University of Wisconsin - Madison

August 2015   **Doctor of Philosophy**, *Human Interaction With Assistive Free-Flyers*, Daniel Szafir, Department of Computer Sciences.
University of Wisconsin - Madison

July 2015   **Doctor of Philosophy**, *Perceptually Informed Scalable Sequence Comparison*, Danielle Albers/Szafir, Department of Computer Sciences.
University of Wisconsin - Madison

May 2013   **Master's of Fine Arts**, *Bikeways as an Expression of Urban Culture – Enriching Cycling Experiences*, Chengcheng Mei, Department of Design Studies.
University of Wisconsin - Madison