

David I. Schwartz, Ph.D.

Curriculum Vitae

School of Interactive Games and Media
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1. Career History

1.1 Rochester Institute of Technology (Rochester, New York)

2015–present	Director School of Interactive Games and Media
2013–2016	Undergraduate Program Coordinator School of Interactive Games and Media
2011–present	Associate Professor School of Interactive Games and Media
2009–2011	Assistant Professor Department of Interactive Games and Media
2007–2009	Assistant Professor Information Technology Department

1.2 Air Force Research Laboratory (Rome, New York)

2006–2008	Visiting Research Professor (6/06–12/06, 5/07–8/07, 6/08–9/08)
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1.3 Cornell University (Ithaca, New York)

2003–2007	Director Game Design Initiative at Cornell University
1999–2007	Lecturer Department of Computer Science

1.4 State University of New York at Buffalo (Amherst, New York)

1997–1998	Instructor School of Engineering and Applied Science
1990–1997	Teaching/Research Assistant Department of Civil Engineering

2. Education

- Ph.D. in Civil Engineering, State University of New York at Buffalo, 1999
Dissertation: [Deterministic Interval Uncertainty Methods for Structural Analysis](#)
- M.S. in Civil Engineering, State University of New York at Buffalo, 1994
Thesis: [Qualitative Reasoning for Matrix Structural Analysis](#)
- B.S. in Civil Engineering, State University of New York at Buffalo, 1990
Concentration: [Structural Engineering](#)

3. Scholarship, Research, and Development

3.1 Post-Tenure Timeline Overview

- The following chart summarizes the approximate dates of published research, development (networking and unpublished work), funding (proposed and awarded), student supervision, and scholarship.
- Most projects (shown alphabetically) have multiple focus areas, e.g., pedagogy and simulation, which create natural overlaps.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Digital Twins											X	X	X
Geogames			X	X	X	X			X	X	X	X	X
Pedagogy	X	X	X	X	X	X	X			X	X	X	X
Physics			X	X	X	X	X			X		X	X
Security	X	X	X	X	X	X	X	X	X	X	X	X	X
Simulation	X	X	X	X							X	X	X

3.2 Primary Grants Post-Tenure Summary

Date	Funding (\$K)	Total Since Tenure (\$K)	Source	Role	Title
2024	1,125	TBA	NSF	Co-PI	Pending: Collaborative Research: ReDDDoT Phase 2: VARUNA: A User-Centered All-in-One Media Forensics Platform
	60	TBA	DoD SBIR/Navy	PI (RIT)	Pending: Theater Naval Wargame for Strategy Refinement w/Assured Information Security, Inc.
	600	TBA	NSF	Co-PI	Pending: AI-Based Semiconductor Cybersecurity Training in XR Environments
	600	TBA	NSF	Co-PI	Pending: MATH-TD: Mathematical Foundations of Porous Materials Digital Twin with Applications to Rapid Design of Airfields
2023	2,174	TBA	NSF	Co-PI	Pending: Equipment MRI: Track 2 Acquisition of Cyber
	600	2533	NSF	KP	CAREER: Towards Reliable and Quantum-resistant Connected Vehicle Security
	30	1933	NSA/University of South Florida	Co-PI	A game to introduce cybersecurity careers to low-income community members
	30	1903	NASA	Co-PI	Integrating Gamification and IDEIs to Enable Crew Health and Performance on Mars
	50	1873	MITRE	KP	RIT Innovation Fellows
2022	30	1823	Army & RIT AEOP Design of	PI	Resilience Game Design Research
	615	1793	US Military Academy Army Cyber Institute	PI	Resilience Game Design Research

	~200	1178	Foundry (MAGIC Project)	Co-PI	Blockchain and Decentraland
2021	50	978	NASA	Co-PI	Gamification and Performance-Based Monitoring of Sensorimotor Training Activities
2020	100	828	Dapper Labs (MAGIC Project)	Co-PI	Flow Blockchain
2017	146	703	NSF	Co-PI	REU Site: Serious Geographic Information Systems (GIS) Games for Disaster Resilience Spatial Thinking
2015	~135	682	RIT GCCIS	PI	ATLAS open-source development for game physics and graphics
2015	12	547	BioDrill Technical Solutions	KP	SIMAD (Simulated Anaerobic Digester): An Educational STEM Game
2014	94	535	NSF/BioDrill Technical Solutions	KP	SIMAD (Simulated Anaerobic Digester): An Educational STEM Game
	241	441	NSF	KP	Gamified Digital Forensics Course Modules for Undergraduates
2011	~200	200	RIT Trustee Gift	PI	StoreWorld (project initial funding pre-tenure)
PI=Principal Investigator Co-PI=Co-Principal Investigator KP=Key/Senior Personnel					

3.3 Peer-Reviewed Books and Chapters

1. Schwartz, C., Pelletier, J., **Schwartz, D.I.**, Wright, M., Hickerson, A. (2024). "Deepfakes in Narrative Warfare." In *Artificial Intelligence and Global Arms Race: Question of Peace Reconsidered*. Manchester University Press.
2. Tomaszewski, B.; Konovitz-Davern, A.; **Schwartz, D. I.**; Szarzynski, J.; Siedentopp, L.; Miller, A.; Hartz, J. (2017). GIS and Serious Games in T.J. Cova, M.-H. Tsou (Eds.) *Comprehensive Geographic Information Systems*, Elsevier, 2017, pp. 15 pages. doi.org/10.1016/B978-0-12-409548-9.09623-8.
3. Selinger, E.; Seager, T. P.; Spierre, S.; **Schwartz, D. I.** (2012). Using Sustainability Games to Elicit Moral Hypotheses From Scientists and Engineers. In Per Homann, Jespersen, Soren Riis, and Pernille Almlund (eds.), *Rethinking Climate Change Research: Clean-Technology, Culture, and Communication*, Ashgate, pp. 117-130. www.ashgate.com/isbn/9781409428664, <https://asu.pure.elsevier.com/en/publications/using-sustainability-games-to-elicit-moral-hypotheses-from-scient>.
4. **Schwartz, D. I.**; Bayliss, J. D. (2011). The Ethics of Reverse Engineering of Game Technology, *Designing Games for Ethics: Models, Techniques and Frameworks*, K. Schrier (ed), IGI Global. www.igi-global.com/book/designing-games-ethics/46007.
5. **Schwartz, D. I.**; Bayliss, J. D. (2011). Unifying Instructional and Game Design, *Handbook of Research on Improving Learning and Motivation through Educational Games*, P. Felicia (ed), IGI Global. www.igi-global.com/book/handbook-research-%20improving-learning-motivation/47397.
6. **Schwartz, D. I.** (2005). [Introduction to UNIX, 2nd edition](#), Prentice Hall, 2005. Translations: Japanese, Chinese.
7. **Schwartz, D. I.** (2003). [Introduction to Maple, 2nd edition](#), Prentice Hall, 2003. Translations:

3.4 Peer-Reviewed Journal Papers

1. Tomaszewski, B.; Walker, A.; Gawlik, E.; Lane, C.; Williams, S.; Orieta, D.; McDaniel, C.; Plummer, M.; Nair, A.; San Jose, N.; Terell, N.; Pecok, K.; Thomley, E.; Mahoney, E.; Haberlack, E.; **Schwartz, D.** (2020). Supporting Disaster Resilience Spatial Thinking with Serious GeoGames: Project Lily Pad. *DISPRS Int. J. Geo-Inf.* 2020, 9(6), 405; doi.org/10.3390/ijgi9060405; www.mdpi.com/2220-9964/9/6/405.
2. **Schwartz, D. I.** (2011). Teaching Students to Make Alternative Game Controllers, *Journal of Game Design and Development Education*, A. K. Peters Ltd. www.rit.edu/gccis/gameeducationjournal/download-2011-pdf (link under construction).
3. Fan, K-Y. D.; **Schwartz, D. I.** (2004). First Programming Course in Engineering: Balancing Tradition and Application. *Computers in Education Journal*, Vol. 13, No. 3 (July-September), 55-60. peer.asee.org/12160.
4. **Schwartz, D. I.**; Chen, S. S. (1995). A Constraint-Based Approach for Qualitative Matrix Structural Analysis, *Artificial Intelligence for Engineering Design, Analysis and Manufacturing*, 9, 23–36, DOI:10.1017/S0890060400002067, www.cambridge.org/core/journals/ai-edam/article/abs/constraintbased-approach-for-qualitative-matrix-structural-analysis/A289CDD44BEF649E836772F4B54704BA.
5. **Schwartz, D. I.**; Chen, S. S. (1994). Towards a Unified Framework for Interval Based Qualitative Computational Matrix Structural Analysis, *Computing Systems in Engineering*, 5, 147–158, [doi.org/10.1016/0956-0521\(94\)90046-9](https://doi.org/10.1016/0956-0521(94)90046-9).
6. Dagher, H.J.; Caccese, V.; Hebert, R; **Schwartz, D. I.** (1991). Feasibility of CCA Treated Stressed Timber Bridge Decks, *Forest Products Journal*, 41 (10): 60–64, agris.fao.org/agris-search/search.do?recordID=US9159673.

3.5 Shipped/Published Games & Simulations

1. D. I. **Schwartz** (with Yin Pan and Sumita Mishra) (2017). IPAR, Rochester Institute of Technology, forensic-games.csec.rit.edu (now closed).
2. D. I. **Schwartz** (with Steve Gold, Ashok Rao, Jason Arena) (2012). StoreWorld™, Rochester Institute of Technology, apps.facebook.com/storeworldgame (no longer available).
3. BioDrill, J. D. Bayliss, www.youtube.com/watch?v=sBDB7uxVuSg. The game was released to the sponsor.

3.6 Peer-Reviewed Conference Papers and Extended Abstracts

1. Xu, J.; Papangelis, K.; Tigwell, G.; Lalone, N.; Zhou, P.; Saker, M.; Chamberlain, A.; Dunham, J.; Luna, S. M.; **Schwartz, D.** (2024). Spatial Computing: Defining the Vision for the Future, *CHI EA '24*, May 11–16, 2024, 10.1145/3613905.3643978.
2. Dunham, J.; Xu, J.; Papangelis, K.; LaLone, N.; Saker, M.; Schwartz, D. (2024). Pokémon GO as an Advertising Platform: The Case for Locative Advertising in Location-Based Games, *ACM Games: Research and Practice*, **Volume 2, Issue 1**, Article No.: 6pp 1–25, doi.org/10.1145/3641509.
3. Dunham, J.; Papangelis, K.; Boulanger, C.; Lalone, N.; Nika, E. L.; Saker, M.; **Schwartz, D.** (2023). Building Positively Affective Location-Based Advertising: A Study of Pokemon GO Players. *CHI '23: Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, April 2023, Article No.: 570, Pages 1–19, doi.org/10.1145/3544548.3580939.
4. Zhang, H.; Cao, L.; Howell, G.; Schwartz, D.; Peng, C. (2023). An educational virtual reality game for learning historical events, *Virtual Reality* **27**, 2895–2909 (2023). doi.org/10.1007/s10055-023-00845-5.
5. Cao, L.; Shuminski, J.; Zhang, H.; Solanki, P.; Long, D.; **Schwartz, D.**; Mardini, I.; Peng, C.

- (2023). Multi-User VR Experience for Creating and Trading Non-Fungible Tokens, International Conference on Human-Computer Interaction, pp. 604-618, Lecture Notes in Computer Science, vol 14027. Springer, Cham. https://doi.org/10.1007/978-3-031-35634-6_44.
6. Xu, J.; Pagangelis, K.; Dunham, J.; Goncalves, J.; LaLone, N. J.; Chamberlain, A., Lykourantzou, I.; Vinhella, F. L.; **Schwartz, D. I.** (2022). Metaverse: The Vision for the Future, CHI EA '22: Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems, April 2022, Article No.: 167, pp. 1-3, doi.org/10.1145/3491101.3516399.
 7. Dunham, J.; Xu, J.; Papangelis, K.; **Schwartz, D. I.** (2022). Advertising Location-Based Games: An Exploration in Pokemon GO, CHI EA '22: Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems, April 2022, Article No.: 271, pp. 1-6. doi.org/10.1145/3491101.3519663.
 8. **Schwartz, D. I.** (2021). Making Games to Teach Physics and Mechanics, Middle Atlantic American Society for Engineering Education (ASEE) Conference 2021 Villanova, PA, peer.asee.org/36308.
 9. Peng, C.; **Schwartz, D. I.**; Johnson, D.; Stackpole, B.; Weeden, C.; Marcovecchio, J.; Richards, D.; Fogle, C.; Brown, C.; Walrond, V. (2020). Visualization for Spectators in Cybersecurity Competitions. VizSec 2020, 17th IEEE Symposium on Visualization for Cyber Security. vizsec.org/vizsec2020, doi.org/10.1109/VizSec51108.2020.00009.
 10. Tomaszewski, B.; **Schwartz, D. I.** (2017). Critical Spatial Thinking and Serious Geogames: A Position, AGILE 2017 Workshop on Geogames and Geoplay, www.geogames-team.org/agile2017, ceur-ws.org/Vol-1952/Critical_SpatialThinking.pdf.
 11. Pan, Y.; Mishra, S.; **Schwartz, D. I.** (2017). Gamifying Course Modules for Entry Level Students, Proceedings of the 2017 ASEE Annual Conference & Exposition, pp. 435-440, dl.acm.org/doi/abs/10.1145/3017680.3017709.
 12. Pan, Y.; Mishra, S.; **Schwartz, D. I.** (2017). Gamifying Cybersecurity Course Content for Entry Level Students, Proceedings of the 2017 ACM SIGCSE Technical Symposium on Computer Science Education, DOI: 10.18260/1-2—27736, peer.asee.org/27736.
 13. Tomaszewski, B.; **Schwartz, D. I.**; Szarzynski, J. (2016). Crisis Response Serious Spatial Thinking Games: Spatial Think Aloud Study Results. In A. Tapia, P. Antunes, V.A. Bañuls, K. Moore, & J. Porto (Eds.), ISCRAM 2016 Conference Proceedings – 13th International Conference on Information Systems for Crisis Response and Management. Rio de Janeiro, Brasil: Federal University of Rio de Janeiro, www.iscram2016.nce.ufrj.br, www.rit.edu/gccis/geoinfosciencecenter/sites/rit.edu/gccis.geoinfosciencecenter/files/docs/1369_BrianTomaszewski_etal2016.pdf.
 14. Pan, Y.; **Schwartz, D. I.**; Mishra, S. (2015). Gamified Digital Forensic Course Modules for Undergraduates, Proc. of the 5th IEEE Integrated STEM Education Conference, Princeton, NJ.
 15. Tomaszewski, B.; Szarzynski, J.; **Schwartz, D. I.** (2014). Serious Games for Disaster Risk Reduction Spatial Thinking, GIScience 2014 (extended abstract).
 16. Critelli, M.; **Schwartz, D. I.**; Gold, S. (2012). Serious social games: Designing a business simulation game, Proceedings of Games Innovation Conference (IGIC), 2012 IEEE International, pp. 84-88, doi.org/10.1109/IGIC.2012.6329843.
 17. Pan, Y.; Mishra, S.; Yuan, B.; Stackpole, B.; **Schwartz, D. I.** (2012). Game-based Forensics Course For First Year Students, SIGITE '12, Proceedings of the 13th annual conference on Information technology education, ACM, pp 13-18, dl.acm.org/doi/10.1145/2380552.2380558.
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18. Ey, M.; Pietruch, J.; **Schwartz, D. I.** (2010). “Oh-No! Banjo”—A Case Student in Alternative Game Controllers, in Proceedings of Future Play 2010, ACM, dl.acm.org/doi/10.1145/1920778.1920810.
 19. Seager, T. P.; Selinger, E.; Whiddon, D.; **Schwartz, D. I.** (2010). Debunking the Fallacy of the Individual Decision-maker: An Experiential Pedagogy for Sustainability Ethics, The International Symposium on Sustainable Systems and Technology, 2010,

- doi.org/10.1109/ISSST.2010.5507679.
20. Bayliss, J. D.; **Schwartz**, D. I. (2009). Instructional Design as Game Design, dl.acm.org/doi/10.1145/1536513.1536526. Proceedings of the 4th International Conference on Foundations of Digital Games, ACM.
 21. **Schwartz**, D. I. (2008). Motivating Engineering Mathematics Education with Game Analysis Metrics, Proceedings of the ASEE Zone I Conference, West Point, NY, March 2008, docplayer.net/8620286-Motivating-engineering-mathematics-education-with-game-analysis-metrics.html.
 22. **Schwartz**, D. I.; Locke, K.; Ross, D. O.; Emeny, M. (2007). The Future of Wargame Design: A Componentized Approach, Proceedings of The Huntsville Simulation Conference (HSC 2007).
 23. **Schwartz**, D. I.; Norton, C.; Schwartz, S. (2007). Outreach with Game Design Education (2007). Proceedings of The American Society for Engineering Education 2007 Annual Conference, DOI: 10.18260/1-2—2604, peer.asee.org/2604.
 24. **Schwartz**, D. I.; Cosgrave, T.; Weidner, S. (2007). Designing Shape-shifting Collaborative Laboratory Spaces to Facilitate Game-Design Education. Proceedings of the 2nd Annual Microsoft Academic Days on Game Development in Computer Science Education, 95-99, Microsoft, www.cs.cornell.edu/dis/CL3/Evaluation/ms_final.pdf, stewart.sdsu.edu/3dgame-prog/MADGD-CSE-C/madgdcse2007.pdf.
 25. Rajagopalan, M.; **Schwartz**, D. I. (2005). Game design and game-development education, Phi Kappa Phi Forum, Honor Society of Phi Kappa Phi, link.gale.com/apps/doc/A135022702/AONE?u=nysl_oweb&sid=googleScholar&xid=dc84704a.
 26. Hoetzlein, R.; **Schwartz**, D. I. (2005). GameX: A Platform for Incremental Instruction in Computer Graphics and Game Design, SIGGRAPH Proceedings 2005, SIGGRAPH, dl.acm.org/doi/10.1145/1187358.1187402.
 27. **Schwartz**, D.I.; Rajagopalan, R.; Hoetzlein, R.; Ross, D. O. (2005). Developing a Virtual Engineering Curriculum Via Video Game Design. Proceedings of The American Society for Engineering Education St. Lawrence Section Conference, Binghamton University.
 28. **Schwartz**, D. I. (with many others) (2005). Supporting Workflow in a Course Management System, Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education, 262-266, dl.acm.org/doi/10.1145/1047344.1047439.
 29. Hoetzlein, R; **Schwartz**, D. I. (2003). Computer Game Design as A Tool for Cooperative Interdisciplinary Education, Proceedings of The American Society for Engineering Education St. Lawrence Section Conference, Queens University.
 30. **Schwartz**, D. I.; Chen, S. S. (1996). Interval Methods for Qualitatively Uncertain Models in Structural Design, Information Representation and Delivery, In Civil And Structural Engineering Design Conference Proceedings of ITCSED '96, International Conference on Information Technology in Civil & Structural Design, Glasgow, Scotland (B. Kumar, editor), Civil-Comp Press, U.K., 63-67.
 31. **Schwartz**, D. I.; Chen, S. S. (1993). Order of Magnitude Reasoning for Qualitative Matrix Structural Analysis, Proceedings of The Fifth International Conference on Computing in Civil and Building Engineering, ASCE, 1267-1274, 1993, cedb.asce.org/CEDBsearch/record.jsp?dockey=0082249.
 32. **Schwartz**, D. I.; Chen, S. S. (1992). Spatial and Temporal Aspects of Qualitative Structural Reasoning, Proceedings of the Eighth Annual Conference on Computing in Civil Engineering, ASCE, 277-284, 1992, cedb.asce.org/CEDBsearch/record.jsp?dockey=0076467.
 33. Dagher, H. J.; Caccese, V.; Herbert, R.; **Schwartz**, D. I. (1990). Design of CCA-Treated Timber Decks, Proceedings of The Second NSF Workshop on Bridge Engineering Research in Progress, University of Nevada, Reno, 261-263, 1990.

3.7 Peer-Reviewed (*) and Invited Abstracts, Talks, Panels, Posters, and Workshops

1. * Peng, C.; Cao, L.; **Schwartz, D.**; Zhang, H. (2024). Integrating Independent Contributions in a Game Programming Assignment. In Special Interest Group on Computer Graphics and Interactive Techniques Conference Educator's Forum (SIGGRAPH Educators Forum '24), July 27 - August 01, 2024. ACM, New York, NY, USA, 2 pages, doi.org/10.1145/3641235.366443_s2024.conference-program.org/presentation/?id=gensub_156&sess=sess203.
 2. * **Schwartz, D. I.**; Abitbol, D.; Nack, E. A.; Wilkinson, C. M.; Whitham, S. M.; Tomaszewski, B.; Bayliss, J. D.; Peng, C. (2023). Game Design for Critical Infrastructure Resilience: Game Engine Integration with Geospatial Technology, presentation, www.mors.org/Events/Symposium/91st-Symposium.
 3. * **Schwartz, D. I.**; Tomaszewski, B.; Bayliss, J. D. (2023). Gaming that Saves Lives: Toward Resilience Games, poster, Great Lakes Security Day, RIT.
 4. **Schwartz, D. I.** (2023). (Beyond) Serious Games, ACM Games: Research and Practice.
 5. DeBartolo, E. A. & **Schwartz, D. I.** (2023). Game Jam, 2023 KEEN National Conference, na.eventscloud.com/website/45812/agenda.
 6. *DeBartolo, E. A. & **Schwartz, D. I.** (2022). [Capstone Design: The Role Playing Adventure Game, Capstone Design Conference 2022 | results](#).
 7. ***Schwartz, D. I.** (2022). ATLAS: a new open-source collection of game development examples with fully commented code, education.siggraph.org/newcontent/first-soiree-may-13.
 8. ***Schwartz, D. I.**; Tomaszewski, B. (2021). When Virtual and Real Worlds Collide: Civil Engineering and Location-based Games. Middle Atlantic American Society for Engineering Education (ASEE) Conference 2021 Villanova, PA. peer.asee.org/collections/middle-atlantic-asee-section-spring-2021-conference.
 9. **Schwartz, D. I.**; Pan, Y. (2016). IPAR, NSF ATE Conference 2016, Washington, DC. atecentral.net/pimeeting2016.
 10. *Pan, Y.; McGlinn, R.; Mishra, S.; **Schwartz, D. I.** (2016). Gamifying Cybersecurity Modules for Entry Level Students, CISSE, 21st Colloquium.
 11. *Pan, Y.; Mishra, S.; **Schwartz, D. I.**; McNett, A.; McCarthy, P. (2015). Gamified Digital Forensics Course Modules for Entry-Level Students: Presentation and Demonstration, the 24th Annual Conference on Instruction & Technology (CIT 2015), SUNY Geneseo, NY.
 12. *Tomaszewski, B.; Szarzynski, J.; **Schwartz, D. I.** (2014). Serious Games for Disaster Risk Reduction Spatial Thinking, GIScience 2014, www.giscience.org/accepted_short.html.
 13. **Schwartz, D. I.** (2012). Marketing Your Games, Rochester Sci-Fi Convention.
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14. **Schwartz, D. I.** (2011). Breaking into the Game Industry, Videogame Mania, The Strong National Museum of Play.
 15. **Schwartz, D. I.** (2011). Breaking into the Game Industry, Rochester Sci-Fi Convention.
 16. **Schwartz, D. I.** (2009). Beyond Motion Sensing: Alternative Game Interfaces, Dakota State University Symposium on Computer Game Design & Game Jam 2009.
 17. **Schwartz, D. I.** (2009). Course Development for Alternative Game Controllers, Education Summit, Game Developers Conference.
 18. **Schwartz, D. I.** (2009). RIT student games, Foundations of Digital Games: Demo Session, ACM.
 19. Sarnacki, A.; **Schwartz, D. I.**; Ross, D. O. (2008). Wargame Workshop, Info Challenges 2008 Conference and Exposition, Department of the Air Force, Air Force Materiel Command, AFRL-Rome Research Site.
 20. **Schwartz, D. I.** (2008). Wargame Engine Development and Research Concepts, Info Challenges 2008 Conference and Exposition, Department of the Air Force, Air Force Materiel Command, AFRL-Rome Research Site.
 21. ***Schwartz, D. I.**; Weidner, S.; Cosgrave, A. (2007). Fostering and Measuring Collaborative

- Computing and Learning in the Cornell Library Collaborative Learning Computer Laboratory, ACRL (Association of College & Research Libraries) 13th National Conference.
22. *Schwartz, D. I.; Rajagopalan, M. (2006). Teaching Technical Communication with Computer Game Design, American Society for Engineering Education National Conference.
 23. *Schwartz, D. I. (2005). Building Game Development Labs and Facilities in Academic Settings (moderator), FuturePlay Conference.
 24. *Schwartz, D. I.; Cosgrave, A.; Bronson, G. (2005). Collaborative learning, multimedia development, flexibility: Developing and implementing the Cornell Library Collaborative Learning Computer Laboratory, LabMan 2005, the 6th Annual Lab Management Conference, Cornell University.
 25. *Schwartz, D. I. (2001). The Inexperienced Educator's Guide To Managing A Large Hierarchical Staff in Emerging Technologies for Industry and Education, ASEE St. Lawrence Section Conference.

3.8 Sponsor-Reviewed Articles and Technical Reports

1. Schwartz, D. I.; Davis, S. (2009). Linguistic Geometry: Extension Grant final report, AFRL/RI, VFRP Technical Report.
2. Schwartz, D. I. (2008). Wargame Research Directions: Summer Report, AFRL/RI, VFRP Technical Report.
3. Schwartz, D. I. (2008). Wargame Engine Design: Extension Grant final report, AFRL/IFSB, VFRP Technical Report.
4. Schwartz, D. I. (2007). Wargame Engine Design Summer Report, AFRL/IFSB, VFRP Technical Report.
5. Rajagopalan, M.; Schwartz, D. I. (2005). Game Design and Game-Development Education, Phi Kappa Phi Forum, Volume 85, Summer 2005.
6. Fan, K-Y.; Schwartz, D. I. (2002). Introductory Programming Using MATLAB,
7. MATLAB News & Notes, October 2002.

3.9 Popular Press

1. Schwartz, D. I. (2022). Introduction for *What's Wrong with this Resume?* by Mark Buchignani, books2read.com/u/bP7kxd.
2. Schwartz, D. I. (2019) Beyond 'Bandersnatch,' the future of interactive T.V. is bright, The Conversation, theconversation.com/beyond-bandersnatch-the-future-of-interactive-tv-is-bright-111037. See also www.fastcompany.com/90326433/what-history-teaches-us-about-the-future-of-interactive-tv.

3.10 Articles, News, and Press Releases

1. (2024) RIT game design and development programs ranked among top 10, Scott Bureau, RIT News, <https://www.rit.edu/news/rit-game-design-and-development-programs-ranked-among-top-10>.
2. (2024) RIT ranked among top game design schools in the United States, Scott Bureau, RIT News, <https://www.rit.edu/news/rit-ranked-among-top-game-design-schools-united-states>.
3. (2023) Game design initiative makes digital dreams come true, Patricia Waldron, Cornell University, <https://news.cornell.edu/stories/2023/05/game-design-initiative-makes-digital-dreams-come-true>.
4. (2023) RIT students building device to keep astronauts healthy in space, Michelle Cometa, RIT News, <https://www.rit.edu/news/rit-students-building-device-keep-astronauts-healthy-space>.
5. (2023) RIT game design and development programs jump in rankings, Scott Bureau, RIT News, www.rit.edu/news/rit-game-design-and-development-programs-jump-rankings.
6. (2023) RIT researchers to create serious video game for infrastructure resilience to cyberattacks, Scott Bureau, RIT News, www.rit.edu/news/rit-researchers-create-serious-video.

- [game-infrastructure-resilience-cyberattacks](#).
7. (2023) RIT named among top 5 game design schools in the country, Scott Bureau, RIT News, www.rit.edu/news/rit-named-among-top-5-game-design-schools-country.
 8. (2022) RIT game design programs ranked among best in the world, Scott Bureau, RIT News, www.rit.edu/news/rit-game-design-programs-ranked-among-best-world-0.
 9. (2022) RIT's game design programs ranked No. 5 nationally, Scott Bureau, RIT News, www.rit.edu/news/rits-game-design-programs-ranked-no-5-nationally.
 10. (2022) Schwartz, Tomaszewski receive grant to prototype resilience game for critical infrastructure leaders, RIT News, www.rit.edu/news/schwartz-tomaszewski-receive-grant-prototype-resilience-game-critical-infrastructure-leaders.
 11. (2021) Schwartz co-edits 'Gaming and Geospatial Information,' RIT News, www.rit.edu/news/schwartz-co-edits-gaming-and-geospatial-information.
 12. (2021) Schwartz named associate editor of journal, RIT News, www.rit.edu/news/schwartz-named-associate-editor-journal.
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4. Teaching and Course Development

4.1 Terminology

I use the following “codes” to unify and clarify my teaching record across three different schools:

- Semester codes: Calendar Year, F (Fall) and Spring S (Spring)
e.g., Spring 2015 and Fall 2016 → S15 and F16
- Quarter codes: Academic Year, 1 (Fall), 2 (Winter), 3 (Spring)
e.g., 2007 Fall, Spring, Winter → 071, 072, 073

IGME	School of Interactive Games and Media (semester system, includes BS and MS)	Rochester Institute of Technology
4080	Game Design and Development (BS) (quarter system)	Rochester Institute of Technology
4085	Game Design and Development (MS) (quarter system)	Rochester Institute of Technology
4002	Information Technology (quarter system)	Rochester Institute of Technology
4003	Computer Science (quarter system)	Rochester Institute of Technology
CS	Computer Science (semester system)	Cornell University
CIS	Computing and Information Science (semester system)	Cornell University
INFO	Information Science (semester system)	Cornell University
ENGRG	Engineering (semester system)	First-year Engineering, Cornell University
EAS	Engineering and Applied Science (semester system)	First-year Engineering, State University of New York at Buffalo

4.2 Rochester Institute of Technology

Course development:

IGME 797 (3D real-time workflow)	2024	In 2024, I have planned a new section of 797 to expand from game physics into 3D workflow via NVIDIA Omniverse . This work extends the 2023 project with MITRE and RIT Innovation Fellows.
IGME 750	2024	I took over Graduate Game Engines when a faculty member had medical leave. Working with two industry experts, we restructured the course to include more examples, new assignments, and weekly lecture topics.
IGME 206	2022–2023	Refining a relatively new bridge course for graduate and transfer students. Course material combines classic CS1 and CS2 material in the context of game design and development.

IGME 099 IGME 299	2014–2020	Developed and refined a co-op/career skills course for sophomores. The course involves collaborating with Career Services to explain how to create job-searching material. IGME-299 merged into IGME-099. IGME-099 became the template for all GCCIS co-op prep classes and has helped thousands of students.
IGME 590 IGME 790	2014–2019	“Game Physics/Physically-based Animation” and related game development examples. See also bit.ly/programgames .
IGME 797 (graduate bridge)	2014–2018	Developed a new course to assist incoming MS-GDD students with C, C++, graphics, architecture, and physics game development.
Various courses	2010–2016	Semester conversion for undergraduate and graduate IGM courses. I played a crucial role in conversion planning (and eventually “fixing” as undergraduate program coordinator) for several IGM courses.
IGME 209 IGME 309	2011–2013 2024	Rewrote the entire “DSA” sequence: updated fixed-function material to the programmable pipeline via shaders, modern OpenGL, and C++. In 2024, 309 will be redeveloped to account for modern graphics frameworks (e.g., OpenFrameworks).
4080-221 4080-222 4080-223	2011–2012	Updated the entire introductory programming sequence (final year of the quarter system). Highlights include formalizing an “advanced” course for students with high CS-AP scores (which I handed off to other faculty after I joined administration) and rewriting all course projects, which created multiple portfolio items for my cohort of students.
4085-787 4085-788	2010–2012	Updated and formalized the entire MS-GDD capstone policies, documents, and procedures. See Section 11 for a comprehensive list of supported graduate projects/theses.
N/A	2009–2012	Developed courses that teach the ethics of sustainability with educational games based on economic game theory via a Provost-awarded \$22K grant. This work involved a multidisciplinary group of faculty and students from Sustainability, Philosophy, and IGM.
N/A	2009–2010	Collaborated with the faculty of IGM and RIT’s Electrical Engineering Technology department to write a CCLI proposal for Physical Computing2, a follow-up to IGM’s Physical Computing course.
4080-221 4080-222 4080-223	2009–2010	Developed a suite of new homework assignments and examples in C# for the introductory programming sequence in game software development, funded by a \$50K Microsoft grant.
4002-590 4002-790	2008–2009	Developed a course on alternative game interfaces in which students make custom game controllers.
4080-330	2007–2008	Rebuilt course; adopted by other instructors.
4002-217 4002-218	2007–2008	Revamped material.

Semester courses taught by title and terms:

IGME 099	Co-op Preparation Workshop	S15–S21
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IGME 206	Game Development for Programmers	F22
IGME 299	Co-op Preparation Workshop	S15
IGME 309	Data Structures & Algs for Games and Sim. II	F13, F18, F24
IGME 590	Game Physics Seminar	S14, S15, S17, F19
IGME 599	Independent Studies	S14-S22, S23
IGME 790	Game Physics Seminar	S14, S15, S17, F19
IGME 797	Advanced Topics in Game Development	F14, F16, S17, F24
IGME 799	Independent Studies	S14-S22, F23-S24

Quarter courses taught by title and terms:

4080-201	Freshman Seminar (GDD)	101, 111
4080-221	Game Software Development I	091, 121
4080-222	Game Software Development II	111, 112, 121
4080-223	Game Software Development III	091, 113
4080-380	Game Design & Development I	091, 102, 111-112
4080-387	Data Structures & Algorithms for Games I	092, 093, 112-113, 123
4080-417	Visual C++ for Programmers	092, 103, 111, 121
4080-487	Data Structures & Algorithms for Games II	093, 103, 122
4080-599	Augmented Reality Golf (independent study)	092-103
4080-599	GameBoy Development (independent study)	112
4080-599	Independent Studies (other students/projects)	093-103, 112-122
4080-834	2D Graphics Programming	122
4080-887	Capstone Design (MS GDD)	102, 112, 122
4080-888	Capstone Development (MS GDD)	103, 113, 123
4080-899	Independent Studies (graduate capstone support)	112-113
4002-217	Programming for Information Technology I	071
4002-218	Programming for Information Technology II	072, 073
4002-330	Interactive Digital Media	072, 073, 081
4002-590	Alternative Game Interface Seminar	082
4002-790	Emerging Themes in Entertainment Technology	073
4003-231	Computer Science 1/"RAPT" 1	082
4003-232	Computer Science 3/"RAPT" 2	083
4003-233	Computer Science 3/"RAPT" 3	081, 083

All RIT Courses taught by term:

F24	IGME 309, IGME 797
S24	IGME 750, IGME 799
F23	IGME 799
S23	IGME 599
F22	IGME 206
S22	IGME 599, IGME 799
F21	IGME 599, IGME 799
S21	IGME 099, IGME 599
F20	IGME 099, IGME 599
S20	IGME 099, IGME 599
F19	IGME 099, IGME 590, IGME 790, IGME 599
S19	IGME 099, IGME 599
F18	IGME 099, IGME 309, IGME 599
S18	IGME 099, IGME 599
F17	IGME 099, IGME 599
S17	IGME 099, IGME 590, IGME 790, IGME 599
F16	IGME 099, IGME 797
S16	IGME 099
F15	IGME 099
S15	IGME 099, IGME 590, IGME 790, IGME 599
F14	IGME 797, IGME 599, IGME 790, IGME 299
S14	IGME 590, IGME 599
F13	IGME 309 (2 sections)
123	4080-387, 4080-888, 4080-599, 4080-899
122	4080-487, 4080-834, 4080-887, 4080-599
121	4080-221, 4080-222, 4080-417
113	4080-381, 4080-387, 4080-888, 4080-599, 4080-899
112	4080-222, 4080-387, 4080-887, 4080-599, 4080-899
111	4080-201, 4080-222
103	4080-417, 4080-487, 4080-888, 4080-599, 4080-899
102	4080-380 (2 sections), 4080-887, 4080-599, 4080-899
101	4080-201 (2 sections), 4080-417, 4080-599
093	4080-387, 4080-487, 4080-599

092	4080-387, 4080-417, 4080-599
091	4080-221, 4080-380
083	4003-232, 4003-233
082	4003-231, 4002-590
081	4003-233, 4002-330
073	4002-218, 4002-330, 4002-790
072	4002-218, 4002-330
071	4002-217

4.3 Cornell University

Course development:

CIS 300 CIS 400	2001–2007	Developed two courses on game design, CIS300 and CIS400, the core courses of Cornell’s Minor in Game Design. The Minor is the first-ever undergraduate Ivy League game design program. gdiac.cis.cornell.edu .
CS 212	2002–2007	Developed compiler-design project and introductory software engineering material for this course on project development. In Fall 2006, I created a second project using game development on the GameBoyAdvance.
CS 214 CS 215	2003–2007	Created two courses: Advanced UNIX (214) and Introduction to C# (215), and trained graduate students in running the courses.
CS 100M	2000–2004	Developed Academic Excellence Workshop program for CS100M in collaboration with Cornell’s College of Engineering.
CS 100M	2000	Developed course material for the first offering of CS100M, an introductory programming course that teaches programming with MATLAB and Java using scientific computing examples.

Courses taught by title and terms:

CS 99	Fundamentals of Computer Programming	F00, F01, F02
CS 100A	Introduction to Computer Programming	S00
CS 100B	Introduction to Computer Programming	F99
CS 100J	Introduction to Computer Programming	S01, F01
CS 100M	Introduction to Computer Programming	F00, F02, S04
CS 114	Introduction to UNIX	F99, S00
ENGRG 150	Engineering Seminar	F00, F02, F04, F05, F06
CS 211	Computers & Programming	S02–F03, F04–S07
CS 212	Java Practicum	S02–F03, F04–S07
CIS 300	Digital Game Design	F04–F05
CIS 400	Advanced Projects in Game Design	F06–S07
CS 490	Game Design Projects	F01–F05

CIS 490 CS 790		
CS 490 CIS 490 INFO 490 CS 790 CIS 790	Advanced Game Design Projects	F02–S06

Courses taught by term:

S07	CS 211, CS 212, CIS 400
F07	CS 211, CS 212, CIS 400, CS 490, CIS 490
S06	CS 211, CS 212, CIS 400, CS 490, CS 490, CIS 490 CS 490, CIS 490, INFO 490, CS 790, CIS 790
F06	CS 211, CS 212, ENGRG 150, CIS 400, CS 490, CIS 490 CS 490, CIS 490, INFO 490, CS 790, CIS 790
S05	CS 211, CS 212, CIS 300, CS 490, CIS 490 CS 490, CIS490, INFO 490, CS790, CIS 790
F05	CS 211, CS 212, ENGRG 150, CIS 300, CS 490, CIS 490 CS 490, CIS490, INFO 490, CS 790, CIS 790
S04	CS 100M, CIS 300, CS 490, CIS 490 CS 490, CIS 490, INFO 490, CS 790, CIS 790
F04	CS 211, CS 212, ENGRG 150, CIS 300, CS 490, CIS 490, INFO 490, CS 790, CIS 790
F03	CS 211, CS 212, CS 490 CS 490, CIS 490, INFO 490, CS 790, CIS 790
S03	CS 211, CS 212, CS 490 CS 490, CIS 490, INFO 490, CS 790, CIS 790
F02	ENGRG 150, C.S. 99, CS 100M, CS 490, CIS 490, INFO 490, CS 790, CIS 790
S02	CS 211, CS 212, CS 490
F01	CS 99, CS 100J, CS 490
S01	CS 100J, CS 490
F00	ENGRG 150, CS 99, CS 100M
S00	CS 100A, CS 114
F99	CS 100B, CS 144

4.4 State University of New York at Buffalo

Course development:

EAS 140	1997–1998	Developed Unix and Maple laboratory modules for EAS 140, an introductory engineering course. These modules formed the basis of the two textbooks published during graduate school, ultimately making my “break” into Cornell.
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Courses taught by term:

F98	EAS 140: Introduction to Engineering
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S97	EAS 140: Introduction to Engineering
F97	EAS 140: Introduction to Engineering

6. Graduate Theses/Capstones/Dissertations

2022–present

- Ph.D. committees, member:
 - Lizhou Cao, Hierarchical Spherical Parameterization and Feature Alignment for Morphologically Varied Character Generation
 - John Dunham, The Role and Impacts of Designed Affordances on Players of Location-Based Game
 - Sanizida Mojib Luna, Deaf and Hard of Hearing People in Co-located Collaborative Multiplayer Augmented Reality Environments
 - Muhammad Raees, Four Challenges of IML Designers: Lessons of an Interactive Customer Segmentation Prototype in a Global Manufacturing Company

2021–2022

- Damn Vulnerable Video Games (2022). M.S. Thesis, Computing Security, RIT (committee member). Fares Dawal.

2014–2016

- Improve the efficiency of game software testing by generating systematic and standardized test cases using combinatorial testing techniques (2015). M.S. Thesis, Industrial and Systems Engineering, RIT (committee member). Bhargava Rohit Sagi.

2013–2014

- *A.V.* (2014). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Preston Johnson, Douglas Lynn. avthegame.com. Award for Excellence in Sensory Experience, RPI Gamefest 2014, games.wp.rpi.edu/616-2. Published on Steam via MAGIC: www.rit.edu/news/story.php?id=51220.
- Shady Dealings (2014). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Alex Hogue, Matthew Kaufmann, Avinash Krisnan, Dan Wild.

2012–2013

- RTS (2013). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Dan Whiddon, redstingames.com/dan/blog.php.
- Unbroken (2013). M.S. Thesis and Capstone Project, IGM, RIT (committee member). John Araujo. johnaraujo.net/unbroken. 3rd Place, RPI Gamefest, games.wp.rpi.edu/2013.
- Chaos Quest (2013). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Luis Bobadilla, Sebastian Hernandez, Rob Link, Nitin Nandakumar, Bill Phillips, Andrew Wilkinson, Jia Xu. sites.google.com/a/g.rit.edu/chaos-quest-project-wiki/dev-blog.

2011–2012

- Card Kingdom (2012). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Ben Dapkiewicz, Stephen Oyarivbie. Justin Schwartz. 4th Prize, RPI Gamefest, www.hass.rpi.edu/pl/gamefest-2012-awards.
- Micro Missions (2012). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Yana Malysheva. micromissions.blogspot.com.
- Galactose (2012). M.S. Thesis and Capstone Project, IGM, RIT (committee member). John O'Meara, David Wikman. steamcommunity.com/sharedfiles/filedetails/?id=92971046, www.youtube.com/watch?v=pv-GDKwzs28.

2010–2011

- Remote Shepherd (2011). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Eric Baker, Bradley Blankenship, Brian Murphy, Dan Wilson II. remote-shepherd.blogspot.com.
- Tribenetica (2011). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Mike Dapiran,

Brian May, Richard Pospel, Bert Wierenga. 63rdgallon.com/wordpress.

2009–2010

- Trigger Happy (2011). M.S. Thesis and Capstone Project, IGM, RIT (committeemember). Sela Davis, Chip Hulseberg, Eric Moreau, Nick Wilsey.
- Shump You! Fighting Spirit (2010). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Michael Ey, Kelley Piering, Joseph Pietruch.
- The Trip (2010). M.S. Thesis and Capstone Project, IGM, RIT (committee member). Heather Arbiter, Jay Austin, Jr., Kapish Rawat, Joshua Wilson.

2009–2010

- Design and Development of Motion Sensing Game Controller Using Stereo Vision and Acceleration Sensing (2009). M.S. Thesis, Department of Information Technology, RIT (committee co-chair). Rashid Tangirbergen.

2005–2006

- Video Play Pathways for Females: Developing Theory (2006), M.S. Thesis, Cornell University (committee member). Meredith Aquila, Professor of Communications Studies and Theater, www.linkedin.com/in/meredith-aquila-a007153.

7. Service and Administration

7.1 Administrative Accomplishments

As Director of the School of Interactive Games and Media (IGM) (2015–present):

- **Leading a top-ranked game design and development program:** [US News & World \(#5\)](#), Princeton Review 2023 ([ugrad-#6](#), [grad-#8](#)), Animation Career Review ([overall, #5](#)). Part of this success derives from a combination of efforts and initiatives: successful staff and faculty hiring, “The Great Alumni Project” (we’ve tracked over 1200 graduates), company outreach, our alumni network, faculty mentoring, increased scholarship, increased funding, students winning competitions, overall job placement, and building RIT Games (games.rit.edu). See also www.rit.edu/directory/disvks-david-schwartz/news for various articles about the rankings.
- **Reinvigorated IGM through successful hiring:** hired lecturers spanning multiple fields, e.g., art, animation, software development, game design), hired six tenure-track faculty, and helped to create a staff position for outreach and marketing. Recruitment of tenure-track faculty has fostered IGM Ph.D. students in the past few years.
- **Grew [research](#) funding and scholarly work:** since 2015, IGM faculty have raised approximately \$8M. This work has supported many students and created the [Niantic GeoGames Lab](#) and the [MAGIC building](#) (I was part of the design team).
- **Helped to found [RIT esports](#), a leading collegiate esports program.**
- **Created an administrative “backend:”** chair/director guides, timelines, and “faculty-student-load” spreadsheets for load and enrollment projections for my college and RIT. RIT’s new chairs and directors have been using my guides, which means I’m helping all of RIT.
- **Founded RIT Games:** games.rit.edu represents a decade-long effort to reformulate RIT’s games and interactive media programs portfolio. RIT now synchronizes multiple degrees, research alliances, MAGIC, and esports across numerous colleges and divisions.

As Undergraduate Coordinator of IGM (2013–2016):

- **Overhauled degree processes:** double majors, program changes, non-major enrollment, community college articulation, handling edge cases for semester conversion, and academic action (leave of

absence, suspension, probation).

- **Revamped marketing material for incoming and prospective students.** Much of IGM's web presence, publications, and external marketing continue to use most of what I've written.
- **Taught thousands of students how to get jobs** (and continuing to do so): I created and implemented the IGM's first "co-op educational workshop" (IGME-099 in collaboration with RIT's Career Services. I made a class template that the B. Thomas Golisano College of Computing and Information Sciences (GCCIS) has replicated and adopted it for all undergraduate majors. The material includes resumes, portfolios, interviews, career preparation, and job hunting.

As Director of the Game Design Initiative at Cornell (2001–2007):

- **Founded GDIAC:** starting with an email to my department chair as a lecturer, I worked with staff, students, and faculty. The concept blossomed into the Ivy League's first formal academic game design program (gdiac.cs.cornell.edu/gdiac).
- **Developed and ran Cornell's Minor in Game Design** (www.cs.cornell.edu/undergrad/minors/game-design-minor).
- Researched, designed, and implemented Cornell's first game development laboratory (www.cs.cornell.edu/dis/CL3).

7.2 RIT

Leadership Summary:

- Director, School of Interactive Games and Media, 2015–present
- Co-Chair, RIT [Council of Chairs](#), Steering Committee 2022–present
- Assessment Task Force Chair, School of Interactive Games and Media, 2020–present
- Associate Editor, [Entertainment Computing](#), 2021–present
- Chair, Lecturer Search, School of Interactive Games and Media, 2022
- Gamer Girl Task Force Chair (2020–2022), School of Interactive Games and Media
- Guest editor, Special Issue "Gaming and Geospatial Information," International Journal of Geo-Information, www.mdpi.com/journal/ijgi/special_issues/Gaming_Geospatial_Information (2019–2020)
- Undergraduate Program Coordinator (2013–2016), School of Interactive Games and Media
- Co-chair, Unconscious Bias Institute Task Force (2015–2017)
- Industry Liaison (2008–2013), School of Interactive Games and Media
- External Relations Chair (2011–2013), School of Interactive Games and Media
- Graduate Capstone Committee Chair (2010–2013), School of Interactive Games and Media
- IGM Student Showcase (originator and coordinator) (2009–2014), School of Interactive Games and Media
- Global Game Jam site coordinator (2009–2011)
- Search Committee Chair (2008–2009), Department of Information Technology

Hosted Colloquiums (college and department):

- Game Design and Sustainability Ethics (2009), Tom Seager and Evan Selinger, Golisano Institute for Sustainability
- Motion-Sensitive Game Design (2009), Ben Kalb, Lead Programmer at ActionXL
- From Graduation to Corporation: What not to do, by someone who did it (2009), Chelsea Howe, Game Designer and Producer at ActionXL
- Action video game playing as a learning tool (2009), Daphne Bavelier, Ph.D. Associate Professor, Departments of Brain and Cognitive Sciences and of Imaging Science Associate Director, Rochester Center for Brain Imaging University of Rochester

- Designing Serious Video Games for Autism Research and Treatment (2009), Matthew Belmonte, Department of Human Development, Cornell University.
- Game Design & Development Colloquium (faculty candidate), Theresa Devine, Columbia College Chicago (2009)
- Game Design & Development Colloquium (faculty candidate), Frank Gilson, Wizards of the Coast (2009)
- Game Design & Development Colloquium (faculty candidate), Lindsay Grace, The Illinois Institute of Art (2009)

Institute Committees/Task Forces and related service:

- Council of Chairs, Steering Committee, co-chair (2022–present)
- Long Range Planning Committee, Faculty Senate, member (2023–present)
- ESL GCI, member (2022–current)
- CASTLE, member (2022–current)
- HCD, affiliation (2017–current)
- RIT Games Visioning Task Force, member (2020–2022)
- ImagineRIT: TAD Competition (2022).
- MAGIC Building Steering & Development Committee, member (2016–2018)
- Unconscious Bias Task Force, co-chair (2015–2017)
- Initiated and named portfolios.rit.edu, a portfolio hosting site for RIT, including alums.
- Campus Committee: member (2009–2011).
- Faculty Outreach and Database (Campus Committee subcommittee, institute): member (2009–2011).
- Parking Appeals Board: member (2009–2010).
- ImagineRIT: TAD Competition (2022).
- ImagineRIT: StoreWorld: A Business Simulation, WoW Center (2012).
- ImagineRIT: StoreWorld: A Business Simulation, WoW Center (2011).
- ImagineRIT: StoreWorld: A Business Simulation, WoW Center (2010).
- ImagineRIT: Augmented Reality Golf, WoW Center (2011).
- ImagineRIT: IGM Graduate Capstones, VIP Room (2011).
- ImagineRIT: Virtual Golf Experience (2010).
- ImagineRIT: Alternative Game Interfaces, WoW Center (2009).

College Committees and related service:

- GCCIS Honors, 2019–2023
- GCCIS FEAD, 2021–2024
- GCCIS Outstanding Educators, 2021–2023
- Endowed GCI Faculty Search Committee, 2020–2022
- Student Services Task Force, 2021–2023
- Tenure Expectations, 2014
- Strategic Student Success: member, 2013–2014
- RIT Student Scholars: member, 2010–2014
- Visiting Scholar: member, 2009–2011
- Summer Career Outreach, presenter, 2009–2023

Unit Committees and related service:

- Assessment Task Force Chair (IGM), chair, 2020–present
- Faculty Search Committee (IGM): member, 2014–2015; Chair, 2019–2020; Chair of Expedited

Lecturer Search, 2022

- Entrepreneurial Co-ops (IGM), faculty supervisor, 2020–2022
- Graduate Admissions, IGM, ad-hoc, 2011–2015
- Game Developers Conference Bootcamp, 2011–2016
- Industry Liaison (IGM), 2009–2013
- External Relations & Advisory Board (IGM): member, 2009–2011; Chair, 2011–2013
- Game Developers Conference Graduate Student Interviews, 2011–2013
- Technical Steering Committee (IGM), member, 2010–2011
- Course Coordinator (IGM 330), Interactive Digital Media, 2009–2011
- Faculty Search Committee (IT), Chair, 2008–2009

Student Organizations:

- IGDA Student Chapter, Rochester: advisor, 2011–2013
- Game Development Club: advisor, 2009–2011; co-advisor, 2008–2009
- Electronic Gaming Society: co-advisor, 2008–2013
- Faculty Advisor, Smash Heroes Finest Fighting League, 2007–2008

Regional and Local Community:

- Orleans-Niagara BOCES (NCTEC) advisory committee, 2020–present
- Assisting upstate New York high school and BOCES programs with guest lectures on game design and development careers, 2006–2014
- Leader of the Rochester Drum Circle, 2008–2019

Reviewer (2000–present):

- Program reviewer, Iowa State University, 2023
- Program reviewer, Georgia State University (CMII), 2023
- Program reviewer, New England Institute of Technology, 2022
- Expert interview on “The Externalities Game” for European Commission study, 2022
- Paper review for Water (MDPI) and Sustainability (MDPI), 2021–2023
- Guest editor, Special Issue “Gaming and Geospatial Information,” International Journal of Geo-Information, www.mdpi.com/journal/ijgi/special_issues/Gaming_Geospatial_Information, 2019–2020
- Article reviews for SIGGRAPH, ACM, 2018
- Article reviews for SIGCSE, ACM, 2016
- Article reviews for Foundations of Digital Games conference, ACM, 2010–2015
- Article reviews for Games and Culture journal, SAGE, 2013
- Chapter reviews for Ethics and Game Design: Volume Two, K. Schrier (ed), IGI Global., 2010
- Chapter reviews for Handbook of Research on Improving Learning and Motivation through Educational Games, P. Felicia (ed), IGI Global., 2010
- Textbook reviews for Prentice Hall and Addison Wesley, 2000–2004

External Organizations, Conferences, and Events:

- Rochester Light & Sound Interactive (LSI), Session Chair for Game Track, 2017–2018
- IGIC 2012 International Games Innovation Conference Games Showcase, 2012
- ImagineCup site organizer, 2011–2013
- Global Game Jam site organizer, 2009–2011
- RPI GameFest 2012, IGM coordinator, 2012

- Videogame Mania (RIT organizer), 2011–2012
- RIT organizer for presentations and showcase, 2011
- SIGGRAPH Sandbox Symposium, Conference Chair, 2007–2009
- American Society for Engineering Education, St. Lawrence Section, Chair, 2005–2007
- American Society for Engineering Education, St. Lawrence Section, Vice Chair, 2004–2005

7.3 Cornell University

Leadership:

- Director and Founder, The Game Design Initiative at Cornell University, 2001–2007
- Coordinator, departmental short courses (CS113, CS114, CS214, CS215), 2001–2007
- Coordinator, Summer Computer Science Placement Exam, 2001–2007
- Vice President, Cayuga Trails Club, Ithaca, New York, 2000–2004

Student Organizations:

- Faculty Co-advisor and founder, Digital Gaming Alliance, 2005–2007
- Faculty Advisor, The Cornell University Klezmer Ensemble, 2006–2007
- Faculty Advisor, Smash Brothers Club, 2004–2007
- Faculty Advisor, Association of Computer Science Undergraduates, 2000–2003

Computing Committees:

- Lab Futures Committee, 2002–2003
- Computing Policy Committee, 2000–2003

Admissions:

- Arts & Sciences Reader (2006)
- College of Engineering Admissions Advisory Committee, 2002–2005

8. Awards and Honors

- 2022 NASA project student team (“[Gamification and Performance-based Monitoring of Sensorimotor Training Activities project](http://www.rit.edu/news/three-student-teams-push-boundaries-improve-society-new-competition)”) won one of the three “TAD [Technology, Arts, and Design] Challenge” prizes of \$5K: www.rit.edu/news/three-student-teams-push-boundaries-improve-society-new-competition
- 2013 Nominated for Richard and Virginia Eisenhart Provost’s Award for Excellence in Teaching
I withdrew because I became an administrator just before the award screening. I cannot receive the award since my continuing administration role in 2013.
- 2012 Extra Mile Award (faculty) from the RIT Student Government (only one RIT faculty member per year)
- 2011 Hewlett Packard first-place sponsor prize, ImagineRIT
- 2010 GCCIS Student Summer Fellowships (three total)
- 2010 Nominated for Richard and Virginia Eisenhart Provost’s Award for Excellence in Teaching
- 2009 Nominated for Richard and Virginia Eisenhart Provost’s Award for Excellence in Teaching
- 2008 Nominated for Richard and Virginia Eisenhart Provost’s Award for Excellence in Teaching