GE JIN 219-989-2131

ANDR 238, 2200 169th St. Hammond, IN 46323

Ge.Jin@pnw.edu

CAREER HISTORY

Professor Aug 2019 – Present

Purdue University Northwest, 2200 169th St. Hammond, IN 46323

Department of Computer Information Technology and Graphics

Associate Professor Aug 2014 – Jul 2019

Purdue University Northwest, 2200 169th St. Hammond, IN 46323

Department of Computer Information Technology and Graphics

Assistant Professor Aug 2008 - Jul 2014

Purdue University Calumet, 2200 169th St. Hammond, IN 46323

Department of Computer Information Technology and Graphics

Postdoctoral Research Scientist Jun 2007- Aug 2008

The George Washington University, Washington, DC 20052

Department of Computer Science

EDUCATION

Doctor of Science in Computer Science

May 2007

The George Washington University, Washington, DC 20052

Dissertation: Active Illumination based Surface Reconstruction and Registration for Image Guided Surgery

Master of Science in Computer Science

Feb 2000

Seoul National University, Seoul, South Korea 151742

Thesis: An Efficient Virtual Endoscopy Using Volume Rendering Technique

Bachelor of Science in Computer Science

Jul 1997

Peking University, Beijing, China 100871

TEACHING EXPERIENCE

Purdue University Northwest

CGT10100 "Introduction to Computer Graphic Technology"

CGT11600 "Geometric Modeling for Visualization & Communication"

CGT14100 "Internet Foundation, Technology and Development"

CGT21500 "Computer Graphics Programming I"

CGT24100 "Introduction to Computer Animation with 3D Max"

CGT33000 "Modeling, Animation, Video Game Design and Development"

CGT34600 "Digital Video And Audio"

CGT44200 "Production Computer Animation with Maya"

CGT44600 "Post-Production and Special Effects"

CGT41501 "Contemporary Problems In Applied Computer Graphics"

CGT41600 "Senior Design Project"

CGT51200 "Human Factors in Computer Interface Design"

TECH58100 "Advanced Computer Graphics Theory and Application"

ITS11000 "Web Systems Technologies"

ITS12000 "User and Information Technology Interaction"

ITS34000 "Advanced Programming"

ITS45000 "Software Assurance"

IT50700 "Measurement and Evaluation in Industry and Technology"

EXTERNAL GRANTS

- **Co-Principal Investigator** (April 2018 to April 2019). GenCyber Summer Camp at Purdue University Northwest from NSA&NSF (\$98,533)
- **Principal Investigator** (April 2017 to April 2018). GenCyber Summer Camp at Purdue University Northwest from NSA&NSF (\$96,260)
- **Co-Principal Investigator** (August 2017 to June 2020). Expanding the Pipeline: Immersive Learning Curriculum Development for High School Cybersecurity Education from NSF SFS (\$482,926)
- **Co-Principal Investigator** (May 2017 to April 2020). MANEUVER: Manufacturing Education Using Virtual Environment Resources from NSF ATE (\$881,425)
- **Co-Principal Investigator** (September 2017 to December 2018). An Innovative Immersive Learning Pedagogical Method Development for Cybersecurity Education from NSA (\$268,725)
- **Co-Principal Investigator** (April 2016 to April 2017). GenCyber Summer Camp at Purdue University Calumet from NSA&NSF (\$88,208)
- **Principal Investigator** (July 2015 to September 2015). Summer 2015 Purdue Research Foundation Faculty Research Grants (\$8,000)
- **Principal Investigator** (July 2014 to December 2014). Spring 2014 Purdue Research Foundation International Travel Grants (\$1,000)
- Co-Principal Investigator (May 2010 to August 2013). NWI GRID Summer Research Grant (\$228,846) / Disaster Management and Communication System for Northwest Indiana
- **Principal Investigator** (Sep 2009 to Jun 2011). Facial State Recognition Research Project (\$50,000) from VR Sonic Inc. as a sub-grant from "A Framework for Incorporating Affective Learning in Virtual Training Environments" Office of Naval Research SBIR N071-078-1349
- **Principal Investigator** (May 2009 to Sep 2009). Rehabilitation System with Data Glove: a Pilot Study (\$15,000) NWICG Summer Research Grant
- **Postdoctoral Research Scientist** (May 2006 to Aug 2008). Development of Image Guided System for Medialization Laryngoplasty (\$2,700,000) from NIH NIDCD Grant R01-DC007125-01B1

AWARDS

Chanute Prize Co-Recipient	The Society of Innovators of Northwest Indiana	2012 - 2013
Outstanding Faculty for Undergraduate Education	College of Technology, Purdue University Calumet	2012 - 2013
Selective Excellence Fellowship	The George Washington University	2003 - 2007
Presidential Merit Scholarship	The George Washington University	2000 - 2003
Overseas Koreans Foundation Scholarship	Seoul National University	1998 – 2000

JOURNAL PUBLICATIONS

- **Jin, G.**, Nakayama, S., Tu, M. (2020). Game Based Learning for Safety and Security Education. Journal of Education and Learning (EduLearn). 14(1).
- **Jin, G.**, Jiang, K., Lee, S. (2018). Development of Virtual Reality Games for Motor Rehabilitation. Journal of Telecommunication, Electronic and Computer Engineering (JTEC). 10(4), 87-94. ISSN: 2180-1843.
- **Jin, G.**, Tu, M., Kim, T., Heffron, J., White, J., Trekles, A. (2018). Development and Evaluation of Cybersecurity Education Games for High School Students. International Journal of Engineering Research & Innovation. 10(1), 25-35. ISSN: 2152-4157.
- **Jin, G.**, Tu, M., Kim, T., Heffron, J., White, J. (2018). Evaluation of Game-Based Learning in Cybersecurity Education for High School Students. Journal of Education and Learning (EduLearn). 12(1), 150-158. ISSN: 2089-9823.
- **Jin, G.**, Chandramouli, M. (2016). Development of Casual 2D Game Laboratory Exercises for Computer Graphics Programming. The Technology Interface International Journal 16(1), 17-23. ISSN: 1523-9926.
- Ahn Y., Jin G. (2015). Type + Code II: A Code Driven Typography. Leonardo: The Journal of the International Society for the Arts, Sciences and Technology. MIT Press. Posted Online March 24, 2015. (doi:10.1162/LEON a 01062)
- Nakayama, S., **Jin, G.** (2015). Safety Training: Enhancing Outcomes through Virtual Environments. Professional Safety. American Society of Safety Engineers. 2015.
- **Jin, G.**, Nicolai, B., Winer, C., Dekker, G., Moreland, J. (2014). Development of a Web-based 3D Visualization and Cluster Computing System for Disaster Management. International Journal of Engineering Research & Innovation 6(2), 41-48. ISSN: 2152-4157.
- **Jin, G.** and Nakayama, S. (2013). Experiential Learning through Virtual Reality: Safety Instruction for Engineering Technology Students. Journal of Engineering Technology 30(2), 14-21. ISSN: 0747-9664.
- Chandramouli, M., **Jin, G.**, Connolly, P. (2012). An Innovative Teaching Initiative using Processing© Open Source Language for Graphics in First Year Engineering and Technology Courses. The Technology Interface International Journal 13(1), 52-61. ISSN: 1523-9926.
- **Jin, G.**, Baek, N., Hahn, J.K., Belamowitcz, S., Mittal, R., Walsh, R. (2009). Image Guided Medialization Laryngoplasty. Journal of Computer Animation and Virtual World 20(1), 67-77. doi: 10.1002/cav.271

CONFERENCE PUBLICATIONS

- Chandramouli, M., **Jin, G.**, Cubillos, D. (2019). MOOC Videos in Project MANEUVER. 2019 Learning With MOOCS (LWMOOCS), 23-25 October, 2019, Milwaukee, WI, USA.
- **Jin, G.**, Tu, M., Kim, T., Heffron, J., White, J. (2018). Game based Cybersecurity Training for High School Students. In Proceedings of the 49th ACM Technical Symposium on Computer Science Education (SIGCSE '18). ACM, New York, NY, USA, 68-73.
- **Jin, G.**, Jiang, K., Lee, S. (2017). Development of Virtual Reality Games for Motor Rehabilitation. KSII The 9th International Conference on Internet (ICONI) 2017. December 17-20, 2017, Vientiane, Laos.
- **Jin, G.**, Tu, M., Kim, T., Heffron, J., White, J. (2017). PNW GenCyber Summer Camp: Game based Cybersecurity Education for High School Students. Fall 2017 Mid-Atlantic ASEE Conference, October 6-7, Reading, Pennsylvania, USA.
- Tu, M., Wu, S., **Jin, G.** (2016). Immersive Learning for Cyber Security Education: A Case Study with the Advanced Operating System Course. In Proceedings of the 2016 National Cyber Summit (NCS'16) Huntsville Alabama. June 2016.
- **Jin, G.**, Dekker, G., Moreland, J., Nicolai, B., Winer, C. (2014). Development of a Web-based 3D Visualization and Cluster Computing System for Disaster Management. 4th IAJC/ISAM Joint International Conference (IAJC 2014), September 25-27, 2014, Orlando FL, USA.
- **Jin, G.** and Chandramouli, M. (2014). Development of Casual 2D Game Laboratory Exercises in Introductory Computer Graphics Programming Course. 4th IAJC/ISAM Joint International

- Conference (IAJC 2014), September 25-27, 2014, Orlando FL, USA.
- **Jin, G.** and Nakayama, S. (2014). Virtual Reality Game for Safety Education. The 4th International Conference on Audio, Language and Image Processing (ICALIP 2014), July 7-9, 2014, Shanghai, China.
- **Jin, G.**, Dekker, G., Moreland, J., Nicolai, B. (2014). Information Technology for Communities: Development of a Web-based 3D Visualization and Cluster Computing System for Disaster Management. 121st ASEE Annual Conference & Exposition 2014 (ASEE 2014), June 15-18, 2014, Indianapolis IN, USA.
- Chen, B. and **Jin, G.** (2013). Visualization of Human Brian Optical Fiber Connectivity. Proceedings of Hong Kong International Conference on Engineering and Applied Science (HKICEAS 2013), December 19 December 21, 2013, Hong Kong, Hong Kong. URL: http://www.hkiceas.org/index.asp?id=46
- Ahn, Y. and **Jin, G.** (2013). Type + Code: A Code Driven Typography. Proceedings of Art Paper Program on IEEE Visualization Conference (IEEE VIS 2013), October 13 October 18, 2013, Atlanta GA, USA.
- **Jin, G.** and Fouad, H. (2013). RADIS: Real Time Affective State Detection and Induction System. MODSIM World Conference & Expo 2013 (MODSIM 2013), April 30- May 2, 2013, Hampton VA, USA.
- Fouad, H. and **Jin, G.** (2012). RADIS: Real Time Affective State Detection and Induction System. Interservice / Industry Training, Simulation and Education Conference (I/ITSEC 2012), December 3-6, 2012, Orlando FL, USA.
- Nakayama, S., and **Jin, G.** (2012). Improving Students' Learning Outcomes in Safety Education through Interdepartmental Collaboration. Conference for Industry and Education Collaboration (CIEC 2012), February 1-3, 2012, Orlando, Florida, USA.
- **Jin, G.**, Nicolai, B., Jiang, K., Winer, C., (2011). Distributed image processing and classification for GIS based disaster management and communication system. Proceedings of 2nd International Conference and Exhibition on Computing for Geospatial Research and Application (Com.Geo11), Washington DC, USA.
- Nakayama, S., and **Jin, G.** (2011). Enhancement of Hazards Identification and Control in Engineering Technology through Interdepartmental Collaboration. Conference for Industry and Education Collaboration (CIEC 2011), February 2-4, 2011, San Antonio, Texas, USA.
- Trekles, A., Kristin, S., Roller, M., **Jin, G.** (2010). Second Life as an Experiential Learning Opportunity. Proceedings for the 2010 Computer & Writing Virtual Worlds Conference, West Lafayette, Indiana.
- **Jin, G.**, Nimish N., Jiang, K., Mapa, L., Zahraee, M., (2010). Immersive Virtual Rehabilitation with Data Glove. Proceedings of 14th International Conference on Computer Graphics and Virtual Reality (CGVR10), 46-50, Las Vegas, USA.
- Nicolai, B., **Jin, G.**, Jiang, K., Winer, C., (2010). Disaster Assessment with Parallel Image Processing for GIS Based Local Area Disaster Decision Support System. Proceedings of 1st International Conference and Exhibition on Computing for Geospatial Research and Application (Com.Geo10), Washington DC, USA.
- Kim, J., **Jin, G.**, Fouad, H., (2010). RADIS: Real-time Affective State Detection and Induction System. Poster Presentation at IADIS International Conference on Interfaces and Human Computer Interaction, Freiburg, Germany.
- Nakayama, S., and **Jin, G.** (2009). Development of Virtual Safety Exercises in Manufacturing, Packaging Machinery Manufacturers Institute Safety & Technology Conference 2009, July 15, 2009, Chicago, IL, USA.
- **Ge Jin**, N. Baek, S. Bielamowicz, R. Mittal, R. Walsh, and J. K. Hahn, "Image guided medialization laryngoplasty." The Journal of Computer Animation and Virtual Worlds (Jan 2009), Vol. 20, No. 1, pp. 67-77
- **Ge Jin**, Sang-Joon Lee, James K. Hahn, Steven Bielamowicz, Rajat Mittal, Raymond Walsh "Active Illumination based 3D Surface Reconstruction and Registration for Image Guided Medialization Laryngoplasty" SPIE Medical Imaging 2007, Feb 17-22, San Diego, USA.
- **Ge Jin**, Sang-Joon Lee, James K. Hahn, Steven Bielamowicz, Rajat Mittal, Raymond Walsh "3D Surface Reconstruction and Registration for Image Guided Medialization Laryngoplasty" International Symposium on Visual Computing (ISVC '06), November 6-8, 2006, Lake Tahoe, USA.

- **Ge Jin**, James Hahn "High Resolution Video from Series of Still Photographs" International Symposium on Visual Computing (ISVC '06), November 6-8, 2006, Lake Tahoe, USA.
- Geralyn M. Schulz, James Hahn, **Ge Jin**, Jared Kiraly, Bahne Carstens, Brigitta Carstens, "Translation of 3-D articulatory signals acquired by electromagnetic articulography to a visual display of lingual movements for biofeedback: Preliminary results", Conference on Speech Motor Control, March 23-26, 2006, Austin, Texas, USA.
- **Ge Jin**, James Hahn "Adding Hand Motion to the Motion Capture Based Character Animation" International Symposium on Visual Computing (ISVC '05), December 5-7, 2005, Lake Tahoe, USA.
- James K. Hahn, **Ge Jin**, Dongho Kim, Roger Kaufman, Michael J. Manyak, John Rewcastle and Raymond J. Walsh "Making Surgical Simulations a Reality:Technical and Practical Issues for Applications in Medicine" The 2005 US Korea Conference on Science, Technology, & Entrepreneurship(UKC2005), Aug 11-13, 2005, Irvine CA, USA
- James Hahn, Michael Manyak, **Ge Jin**, Dongho Kim, John Rewcasle, Sunil Kim, and Raymond Walsh, "Cryotherapy Simulator for Localized Prostate Cancer," Medicine Meets Virtual Reality (MMVR '02), January 23-26, 2002, Newport Beach, California, USA.
- **Ge Jin**, Jaebum Lee, Yeong Gil Shin, and James Hahn, "Cryotherapy for Localized Prostate Cancer," Proceeding of HCI2000 Conference Vol.9 No.1, 2000.1.
- Shin Byeong Seok, **Jin Ge**, Yongil Shin, Jong Hyo Kim "An Efficient Virtual Endoscopy System for Stereotactic NeuroNavigation" Asia-Pacific Conference on Medical and Biomedical Engineering (APCMBE), Seoul, Korea, September 12-15,1999.
- Jae-Jeong Choi, **Jin Ge**, Yeong Gil Shin "Development of 3D Multi-Volume Visualization for Stereotactic Surgery" Proceedings of The 25th KISS Fall Conference Volume 25 Issue 2 pp. 612-614, October 30-31. 1998. Suwon Korea.

REVIWER

IEEE Journal of Biomedical and Health Informatics

IEEE Transactions on Information Technology in Biomedicine (TITB)

The 26th International Conference of the Florida Artificial Intelligence Research Society (FLAIRS-26)

International Conference and Exhibition on Computing for Geospatial Research & Application

ASME 2011 World Conference on Innovative Virtual Reality (WINVR2011)

The 9th ACS/IEEE International Conference on Computer Systems and Applications (AICSSA2011) SPIE Optical Engineering Journal

Journal of Computer Animation and Virtual World (CAVW)

SIGGRAPH/Eurographics Symposium on Computer Animation (SCA)

Medical Image Computing and Computer Assisted Intervention(MICCAI)

Vision, Video and Graphics (VVG)

Journal of Computing and Information Science in Engineering (JCISE)

Journal of Visualization and Computer Animation (JVCA)

ACM Virtual Reality (VR)

GRADUATE COURSES TAKEN

Design of Human Computer Interface Spring 2002 Computer Game Design and Programming Spring 2002 Data Compression Fall 2001

Research & Evaluation Methods Fall 2001

Computer Graphics Programming Tools Spring 2001

Topics in Volume Rendering and Information Visualization Spring 1999 Wavelet for Computer Graphics Fall 1998 Advanced Programming Languages Fall 1998 Distributed Computing Fall 1998 Image Synthesis Spring 2001

Advanced Topics in VR and Animation Spring 2001 Advanced Topics in Computer Graphics Fall 2000 Introduction to Numerical Method Fall 2000 Computer Animation Fall 2000

Computer Graphics II Spring 1998

Topics in Visual Language Spring 1998 Applied Graph Theory Spring 1998 Operating System Spring 1998

PROFESSIONAL SKILLS

Programming Languages:

C++/C, JAVA, Pascal, MFC, Perl, Linux gcc, Visual Studio.

Programming Library:

Matlab, OpenCV, VTK(Visualization Toolkit), MIL (Matrox Imaging Library)

Foreign Languages:

Fluent in Chinese (Mandarin)

Fluent in Korean

Computer Graphics Programming Languages:

OpenGL, DirectX, BMRT/Renderman, JAVA 2D/3D, GPU Shader Programming

Game Engine Programming:

Game Studio 7.0, Crystal Space, Unreal Engine 3 and 4, Unity3D

Other Software Tools:

3D Max, Maya, Adobe Photoshop, Adobe Premire, Final Cut Pro 7, Motion, Adobe AfterEffect, Macromedia Dreamweaver, Microsoft Office.

PROFESSIONAL ORGANIZATIONS

American Society for Engineering Education (ASEE)

ACM SIGGRAPH

IEEE Computer Society

Medical Image Computing and Computer Assisted Intervention (MICCAI)

The International Society for Optical Engineering (SPIE)