Alireza **Tavakkoli,** Ph.D.

Associate Professor · Of · Computer Science and Engineering

Department of Computer Science and Engineering
University of Nevada, Reno
1664 N. Virginia St. M.S. 171, Reno, NV 89557

(775) 682-8426 | (775) 343-9070 | tavakkol@unr.edu | cse.unr.edu/~alit

Research Interests

AI and Machine Learning Computer Vision · Deep Learning · Behavioral Modeling · Intelligent Environments · Intent Recognition

HCI and Gaming Immersive Virtual Reality · Augmented Reality · Mixed Reality · 3D User Interface Design · Serious Games

Robotics Tele-exploration · Tele-presence · Tele-robotics · Remote Sensing and Inspection

Interdisciplinary Computational Ophthalmology · Computational Neuroscience · Biomedical Imaging and Interpretation · AI-Enabled Research Computing Infrastructure

Appointments

Associate Professor *Jul. 2018 - PRESENT*
University of Nevada, Reno *Reno, NV*
- Computer Science and Engineering Department Faculty Member
- COBRE Computational Modeling and Analysis Core Director
- Human-Machine Perception Lab Director

Associate Professor *Sep. 2015 - Aug. 2018*
University of Houston-Victoria *Victoria, TX*
- STEM Division Chair (2017-2018)
- STEM Division Associate Chair (2015-2017)

Assistant Professor *Sep. 2009 - Aug. 2015*
University of Houston-Victoria *Victoria, TX*
- Digital Gaming and Simulation Program Director
- M.Sc. in Computer Science Program Director
- Computer Science Department Faculty Member

Teaching Assistant *Aug. 2008 - May. 2009*
University of Nevada, Reno *Reno, NV*
- CPE 201 - Digital Design

Research Assistant *Jan. 2005 - May. 2009*
University of Nevada, Reno *Reno, NV*
- NSF EPSCoR Research Fellow
- Research Assistant at the Computer Vision Lab

Education

Ph.D. in Computer Science and Engineering *Jan. 2005 - May. 2009*
University of Nevada, Reno *Reno, NV*
Advisor: Dr. Mircea Nicolescu
Thesis: A Non-Parametric Framework for Object Tracking in Videos with Quasi-Stationary Backgrounds

M.Sc. in Computer Science *Jan. 2005 - Dec. 2006*
University of Nevada, Reno *Reno, NV*
Advisor: Dr. Mircea Nicolescu
Thesis: Segmentation for Videos with Quasi-Stationary Backgrounds -A Non-Parametric Approach

M.Sc. in Electrical Engineering *Sep. 2001 - Feb. 2004*
Sharif University of Technology *Tehran, Iran*
Advisor: Dr. Shohreh Kasaei, Dr. Esmaeil Sanai
Thesis: Content-Based Video Compression with Application to Distance Learning

B.Sc. in Electrical Engineering *Sep. 1996 - Sep. 2001*
Sharif University of Technology *Tehran, Iran*
Advisor: Dr. Bijan Vosoughi-Vahdat
Thesis: Design and Implementation of an 8-Bit Microprocessor with FPGA

Grant Awards / Applications

Awarded (UNR)

National Science Foundation *July 2022 - June 2025*
University of Nevada, Reno *$400,000*
Program: OIA-Campus Cyberinfrastructure
Title: CC* Compute: Nevada Bridge to AI-enabled Scientific & Engineering Computing (NvBAISEC)
Role: PI with Frederick C. Harris, Jr. (co-PI), Michael Webster (co-PI), Kenton Sanders (co-PI), Tanya Kelley (co-PI)

National Institutes of Health *July 2022 - June 2027*
University of Nevada, Reno *COBRE Total $9,254,996 (CMA Share: $859,823)*
Program: Centers of Biomedical Research Excellence
Title: COBRE-Phase 3 Core 002: Computational Modeling and Analysis (CMA) Core
Role: PI and Core Director

National Science Foundation *June 2022 - May 2027*
University of Nevada, Reno *$20,000,000 (UNR Share: $6,023,235)*
Program: OIA-EPSCoR Research Infrastructure Improvement
Title: RII Track-1: Harnessing the Data Revolution for Fire Science
Role: Co-PI and UNR Lead with Frederick C. Harris, Jr. (PI), Hans Moosmuller (co-PI, DRI), Haroon Stephen (co-PI, UNLV), and Scotty Strachan (co-PI, NSHE)

Department of Defense *May. 2021 - May. 2024*
University of Nevada, Reno *$598,415*
Agency: AFOSR
Title: A Neurally Inspired Approach to Enhance Perception and Performance in Novel Visual Environments via Generative Network Enabled Virtual Reality
Role: Co-PI and Engineering Learn with Fang Jiang (PI, Neuroscience)

National Aeronautics and Space Administration (NASA) *Oct. 2020 - Sep. 2022*
University of Nevada, Reno *$149,687*
Program: Human Exploration Research Program
Title: A Non-intrusive Ocular Monitoring Framework to Model Ocular Structure and Functional Changes due to Long-term Spaceflight
Role: PI

National Science Foundation *Jul. 2022 - Jan. 2023*
University of Nevada, Reno *$50,000*
Program: Innovation Corps
Title: PupilQuest: A Computational Solution to Measure Relative Afferent Pupilary Defect for Rapid, Objective, and Reliable Evaluation of Optic Nerve Function
Role: PI

Nevada NASA *July. 2020 - May. 2021*
University of Nevada, Reno *$50,000*
Program: NEVADA NASA Space Grant Research Initiation
Title: A Machine Learning Approach for Studying the Correlations Between Ocular Structures and Visual Function
Role: PI

National Science Foundation *Aug. 2020 - Jan. 2022*
University of Nevada, Reno *$50,000*
Program: Innovation Corps
Title: I-Corps: A Mixed Reality Solution for Diagnosis and Recovery of Visual Function Losses due to Age-related, Degenerative Eye Diseases
Role: PI

Army Education Outreach Program *Jun. 2019 - Aug. 2022*
University of Nevada, Reno *$30,000*
Program: REAP: Research and Engineering Apprenticeship Program
Title: High School Research Experience in Teleperception
Role: PI

Awarded (UHV)

National Science Foundation *Sep. 2018 - Aug. 2023*
University of Houston-Victoria *$645,667*
Program: S-STEM: Scholarships in Science, Technology, Engineering, and Mathematics Program
Title: Improving STEM Education in a Rural Area
Role: PI

Army Research Laboratory *Sep. 2015 - Aug. 2018*
University of Houston-Victoria *$412,457*
Program: Basic, Applied, and Advanced Research in Science and Engineering Program
Title: Tele-presence for Efficient Tele-robotics through Immersive Virtual Reality
Role: PI

Army Education Outreach Program *Jun. 2017 – Aug. 2018*
University of Houston-Victoria *$17,000*
Program: HSAP/URAP/REAP: Undergraduate and High School Research Apprenticeship Program
Title: Vision for Telerobotics
Role: PI

Army Research Laboratory *Sep. 2016 - Aug. 2017*
University of Houston-Victoria *$179,297*
Program: Basic, Applied, and Advanced Research in Science and Engineering Program
Title: Enhancing Tele-robotics with Immersive Virtual Reality
Role: PI with Donald Loffredo (co-PI)

National Aeronautics and Space Administration *Sep. 2015 - Aug. 2017*
University of Houston-Victoria *$100,000*
Program: MUREP Advanced STEM Training and Research (ASTAR) Fellowship
Title: Autonomous Cargo Manipulation using Parallelized Visual Odometry
Role: PI (Fellow: Bandon Wilson)

Army Research Laboratory *Dec. 2014 - Dec. 2015*
University of Houston-Victoria *$191,566*
Program: Basic, Applied, and Advanced Research in Science and Engineering Program
Title: Immersive Virtual Reality with Applications to Tele-Operation and Training
Role: PI (Co-PIs: Dr. Donald Loffredo, Dr. Li Chao)

Alcoa Foundation *Sep. 2011 - Aug. 2018*
University of Houston-Victoria *$145,000*
Program: ALCOA Foundation Math/Computer Science/Robotics Consortium
Title: Mathematics and Robotics Experience for High School Students
Role: Director

Texas Higher Education Funds *Sep. 2011 - Aug. 2018*
University of Houston-Victoria *$930,000*
Program: Educational Programs Enhancement Funds
Title: Advanced Research Infrastructure Establishment
Role: Director

National Science Foundation *Jul. 2006 - Jul. 2008*
University of Nevada, Reno *$75,600*
Program: NSF EPSCoR Fellowship in Cognitive Information Processing
Title: A Non-parametric Framework for Object Tracking in Videos with Quasi-stationary Backgrounds
Role: Graduate Research Fellow (Advisor: Dr. Mircea Nicolescu)

Office of Naval Research *Jul. 2006 - Jul. 2012*
University of Nevada, Reno *$930,000*
Program: Educational Programs Enhancement Funds
Title: Context-Based Intent Understanding for Autonomous Systems in Naval and Collaborative Robotics
Role: Graduate Research Assistant

Submitted / Under Review

National Science Foundation *Aug. 2022 - Jul. 2027*
University of Nevada, Reno *$1,499,857*
Program: Industrial Innovations and Partnerships (IIP)
Title: NSF Innovation Corps Hubs Program (I-Corps Hubs)
Role: co-PI with Grace Chou (PI,VPRI)

Publications

Books

1. Tavakkoli, A. (2018). *Game Development and Simulation with Unreal Technology*, 2nd ed., AK Peters/CRC-Press, ISBN: 978-1138092198.
2. Tavakkoli, A. (2015). *Game Development and Simulation with Unreal Technology*, 1st ed., AK Peters/CRC-Press, ISBN: 978-1498706247.

Journal Articles

1. Ong, J., Tavakkoli, A., Strangman, G., Zaman, N., Kamran, S.A., Zhang, Q., Ivkovic, V., Lee, A.G. (2022). "Neuro-ophthalmic Imaging and Visual Assessment Technology for Spaceflight Associated Neuro-ocular Syndrome (SANS)", *Survey of Ophthalmology* , 2022(1) . (h5-index: 48 , IF: 6.05).
2. Kamran, S.A., Hossain, K.F., Moghnieh, H., Riar, S., Bartlett, A., Tavakkoli, A., Sanders, K.M., Baker, S.A. (2022). "New open-source software for subcellular segmentation and analysis of spatiotemporal fluorescence signals using deep learning", *iScience (Cell Press)* , 25(5) . (h5-index: 39 , IF: 5.46).
3. Waisberg, E., Ong, J., Zaman, N., Kamran, S.A., Lee, A.G., Tavakkoli, A. (2022). "A non-invasive approach to monitor anemia during long-duration spaceflight with retinal fundus images and deep learning", *Life Sciences in Space Research* , 33(1) , pp: 69-71. (h5-index: 21 , IF: 2.08).
4. Tavakkoli, A., Kamran, S.A., Hossain, K.F., Zuckerbrod, S.L. (2020). "A novel deep learning conditional generative adversarial network for producing angiography images from retinal fundus photographs", *Scientific Reports* , 10(1) , pp: 1-15. (h5-index: 200 , IF: 4.38).
5. Billah, U., La, H., and Tavakkoli, A. (2020). "Deep Learning-Based Feature Silencing for Accurate Concrete Crack Detection", *Sensors* , 16(4403) , pp: 1-26. (h5-index: 126 , IF: 3.58).
6. Leigh, W., Del Valle, G., Kamran, S., Drumm, B., Tavakkoli, A., Sanders, K., and Baker, S. (2020). "A high throughput machine-learning driven analysis of Ca2+ spatio-temporal maps", *Cell Calcium* , 91(11) , pp: 1-26. (h5-index: 43 , IF: 6.82).
7. Wilson, B. Bounds, M., Mc Fadden, D., Regenbrecht, J., Ohenehn, L., Tavakkoli, A., and Loffredo, D. (2018). "VETO: An Immersive Virtual Environment for Tele-Operation", *Robotics* , 7(2) , pp: 1-26.
8. Loffredo, D., and Tavakkoli, A. (2017). "Analyzing Motives, Preferences, and Experiences in Video Game Play", *Journal of Systemics, Cybernetics, and Informatics* , 15(12) , pp: 32-37.
9. Loffredo, D., and Tavakkoli, A. (2016). "What are European Union Public Attitudes towards Robots?", *Journal of Systemics, Cybernetics, and Informatics* , 14(1) , pp: 11-19.
10. Tavakkoli, A., Loffredo, D., and Ward, M. Sr. (2014). "What do Deep Statistical Analyses on Gaming Motivation and Game Characteristics Clusters Reveal about Targeting Demographics when Designing Gamified Contents?", *Journal of Systemics, Cybernetics, and Informatics* , 13(3) , pp: 34-40.
11. Tavakkoli, A., Loffredo, D., and Ward, M. Sr. (2014). "Insights from Massively Multiplayer Online Role Playing Games to Enhance Gamification in Education", *Journal of Systemics, Cybernetics, and Informatics* , 12(4) , pp: 69-78.
12. Brown, A., Tavakkoli, A., Loffredo, D., and Ehsan, H. (2014). "Interactive Level Design for iOS Assignment Delivery", *Journal of Systemics, Cybernetics, and Informatics* , 12(1) , pp: 27-38.
13. Boyett, M., Tavakkoli, A., and Sobolev, D. (2013). "Mathematical Modeling of Competition for Ammonia among Bacteria, Archaea and Cyanobacteria within Cyanobacterial Mats: Can Ammonia-oxidizers Force Nitrogen Fixation?", *Ocean Science Journal* , 48(3) , pp: 269-277.
14. Tavakkoli, A., and Loffredo, D. (2013). "Can Human Visual Surveillance be Improved with Intent Recognition?", *Journal of Systemics, Cybernetics, and Informatics* , 11(1) , pp: 43-50.
15. Kelley, R., Tavakkoli, A., King C., Ambardekar, A., Nicolescu, M., and Nicolescu, M. (2012). "Context-Based Bayesian Intent Recognition", *Transactions on Autonomous Mental Development* , 4(3) , pp: 215-225.

16. Tavakkoli, A., Nicolescu, M., Bebis, G., and Nicolescu, M. (2009). "Non-parametric Statistical Background Modeling for Efficient Foreground Region Detection", *International Journal of Machine Vision and Applications* , 20(6) , pp: 395-409. (h5-index: 26 , h5-median: 38).
17. Tavakkoli, A., Nicolescu, M., Bebis, G., and Nicolescu, M. (2008). "A Support Vector Data Description Approach for Background Modeling in Videos with Quasi-Stationary Backgrounds", *International Journal of Artificial Intelligence Tools* , 17(4) , pp: 635-658. (h5-index: 14 , h5-median: 24).
18. Kelley, R., King, C., Tavakkoli, Nicolescu, M., Nicolescu, M., and Bebis, G. (2008). "An Architecture for Understanding Intent using Novel Hidden Markov Formulation", *Special Issue on Cognitive Humanoid Robots, International Journal of Humanoid Robotics* , 5(2) , pp: 203-224. (h5-index: 16 , h5-median: 19).

Book Chapters

1. Kamran, S.A., Saha, S., Sabbir, S.A., Tavakkoli, A. (2021). "A comprehensive set of novel residual blocks for deep learning architectures for diagnosis of retinal diseases from optical coherence tomography images", *Deep Learning Applications* , pp: 24-48.
2. Tavakkoli, A., Nicolescu, M., Bebis, G., and Wang, J. (2014). "Background Learning with Support Vectors: Efficient Foreground Detection and Tracking for Automated Visual Surveillance", *Background Modeling and Foreground Detection for Video Surveillance* , pp: 1-23.
3. Kelley, R., Tavakkoli, A., King, C., Ambardekar, A., Wigand, L., Nicolescu, M., and Nicolescu, M. (2014). "Intent Recognition for Human-Robot Interaction", *Plan, Activity, and Intent Recognition* , pp: 343-365.
4. Kelley, R., Tavakkoli, A., King, C., Nicolescu, M., and Nicolescu, M. (2010). "Understanding Activities and Intentions for Human-Robot Interaction", *Advances in Human-Robot Interaction* , pp: 288-301.
5. Tavakkoli, A. (2009). "Novelty detection: An approach to foreground detection in videos", *Pattern Recognition* , pp: 1-31.

Peer Reviewed Proceedings

1. Kamran, S., Hossain, F., Tavakkoli, A., Zuckerbrod, S., Sanders, K., and Baker, S. (2021). "RV-GAN: Segmenting retinal vascular structure in fundus photographs using a novel multi-scale generative adversarial network", *Proceedings of the International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI)* , Strasbourg(France) , pp: 34-44. (h5-index: 69 , h5-median: 112).
2. Kamran, S. A., Hossain, K. F., Tavakkoli, A., Zuckerbrod, S. L., Baker, S. A. (2021). "VTGAN: Semi-supervised Retinal Image Synthesis and Disease Prediction using Vision Transformers.", *Proceedings of the IEEE/CVF International Conference on Computer Vision Workshops (ICCVW)* , Virtual(USA) , pp: 3228-3238. (h5-index: 57 , h5-median: 83).
3. Tudor, A. R., Stone, G., Tavakkoli, A., Hand, E. M. (2021). "Classification of RIGID and Non-Rigid Transformations with Autoencoder Representations.", *Proceedings of the IEEE International Conference on Image Processing (ICIP)* , Virtual(USA) , pp: 854-858. (h5-index: 60 , h5-median: 89).
4. Wang, C., Raymond, L., Jin, Y., Tavakkoli, A., Shen, H. (2021). "3D Unclonable Optical Identity for Universal Product Verification.", *Proceedings of the IEEE International Symposium on Hardware Oriented Security and Trust (HOST)* , Washington DC(USA) , pp: 136-146. (h5-index: 23 , h5-median: 38).
5. Kamran, S., Hossain, F., Tavakkoli, A., and Zuckerbrod, S. (2021). "Attention2AngioGAN: Synthesizing Fluorescein Angiography from Retinal Fundus Images using Generative Adversarial Networks", *Proceedings of the IEEE International Conference on Pattern Recognition* , Milan(Italy) , pp: 1-10. (h5-index: 43 , h5-median: 78).
6. Kamran, S., Tavakkoli, A., and Zuckerbrod, S. (2020). "Improving Robustness using Joint Attention Network For Detecting Retinal Degeneration From Optical Coherence Tomography Images", *Proceedings of the IEEE International Conference on Image Processing* , San Diego(CA) , pp: 1-8. (h5-index: 60 , h5-median: 89).
7. Kamran, S., F. Hossain, Tavakkoli, A., and Zuckerbrod, S. (2020). "Fundus2Angio: A Novel Conditional GAN Architecture for Generating Fluorescein Angiography Images from Retinal Fundus Photography", *Proceedings of the IEEE International Symposium on Visual Computing* , San Diego(CA) , pp: 1-12. (h5-index: 16 , h5-median: 26).
8. Bui, h., Nguyen, S., Billah, H., Le, C., Tavakkoli, C., La, H. (2020). "Control Framework for a Hybrid-steel Bridge Inspection Robot", *IEEE/RSJ International Conference on Intelligent Robots and Systems* , Las Vegas(Nevada) , pp: 1-8. (h5-index: 63 , h5-median: 92).
9. Zaman, N., Tavakkoli, A., and Papachristos, C. (2020). "Tele-robotics via An Efficient Immersive Virtual Reality Architecture", *Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction Workshops* , Cambridge(UK) , pp: 1-6. (h5-index: 46 , h5-median: 66).
10. Zaman, N., Tavakkoli, A., and Zuckerbrod, S. (2020). "A Mixed Reality System for Modeling Perceptual Deficit to Correct

Neural Errors and Recover Functional Vision", *Proceedings of the IEEE International Conference Virtual Reality Workshop on Software Engineering and Architectures for Real-time Interactive Systems* , Atlanta(GA) , pp: 1-6. (h5-index: 28 , h5-median: 38).

11. Tavakkoli, A., Wilson, B., and Bounds, M. (2020). "An Immersive Virtual Reality Environment for Teleoperation of Remote Robotic Agents for Everyday Applications in Prohibitive Environments", *Proceedings of the IEEE International Conference Virtual Reality Workshop on Everyday VR* , Atlanta(GA) , pp: 1-6. (h5-index: 28 , h5-median: 38).
12. Kamran, S., and Saha, S., and Sabbir, A., and Tavakkoli, A. (2019). "Optic-Net: A Novel Convolutional Neural Network for Diagnosis of Retinal Diseases from Optical Tomography Images", *Proceedings of the IEEE International Conference on Machine Learning and Applications* , Boca Raton(FL) , pp: 1-8. (h5-index: 30 , h5-median: 44).
13. Prithu, A., Zaman, N., Tavakkoli, A, and Zuckerbrod, S. (2019). "A Parametric Perceptual Deficit Modeling and Diagnostics Framework for Retina Damage using Mixed Reality", *Proceedings of the International Symposium on Visual Computing* , Lake Tahoe(NV) . (h5-index: 16 , h5-median: 26).
14. Easson, L., Tavakkoli, A., and Greenberg, J. (2019). "An Automatic Digital Terrain Generation Technique for Terrestrial Sensing and Virtual Reality Applications", *Proceedings of the International Symposium on Visual Computing* , Lake Tahoe(NV) . (h5-index: 16 , h5-median: 26).
15. Sehgal, A., Singandhupe, A., La, H., Tavakkoli, A., and Louis, S. (2019). "Lidar-Monocular Visual Odometry with Genetic Algorithm for Parameter Optimization", *Proceedings of the International Symposium on Visual Computing* , Lake Tahoe(NV) . (h5-index: 16 , h5-median: 26).
16. Billah, U.H, Tavakkoli, A., and La, H. (2019). "Concrete Crack Pixel Classification using an Encoder Decoder Based Deep Learning Architecture", *Proceedings of the International Symposium on Visual Computing* , Lake Tahoe(NV) . (h5-index: 16 , h5-median: 26).
17. Billah, U. H., La, H. M., Tavakkoli, A., and Gucunski, N. (2019). "Classification of Concrete Crack using Deep Residual Network", *Proceedings of the 9th International Conference on Structural Health Monitoring of Intelligent Infrastructure (SHMII-9)* , St. Louis(MO) , pp: 203-224.
18. Simmons, S., Clark, K., Tavakkoli, A., and Loffredo, D. (2018). "Sensory Fusion and Intent Recognition for Accurate Gesture Recognition in Virtual Environments", *Proceedings of the International Symposium on Visual Computing* , Las Vegas(NV) , pp: 237-248.
19. Porr, W., Easton, J., Tavakkoli, A., Loffredo, D., and Simmons, S. (2018). "GPU Accelerated Non-Parametric Background Subtraction", *Proceedings of the International Symposium on Visual Computing* , Las Vegas (NV) , pp: 629-639.
20. Porr, W., Easton, J., Tavakkoli, A., Loffredo, D., and Simmons, S. (2018). "Accurate and Efficient Non-Parametric Background Detection for Video Surveillance", *Proceedings of the International Symposium on Visual Computing* , Las Vegas (NV) , pp: 93-105.
21. McFadden, D., Tavakkoli, A., Regenbrecht, J., and Wilson, B. (2017). "Augmented Virtuality: A Real-time Process for Presenting Real-world Visual Sensory Information in an Immersive Virtual Environment for Planetary Exploration", *Innovative Visualization Technologies for Earth and Space Science Applications III: Immersive Technologies Workshop (AGU Meeting)* , New Orleans (LA) , pp: 1-2.
22. Regenbrecht, J., Tavakkoli, A., and Wilson, B. (2017). "A Robust and intuitive 3D interface for teleoperation of autonomous robotic agents through immersive virtual reality environments", *IEEE Symposium on 3D User Interfaces (3DUI)* , Los Angeles (CA) , pp: 199-200.
23. Wilson, B., Deen, R. and Tavakkoli, A. (2016). "A Robust and intuitive 3D interface for teleoperation of autonomous robotic agents through immersive virtual reality environments", *International Symposium on Visual Computing* , Las Vegas (NV) , pp: 202-211.
24. Bounds, M., Wilson, B., Tavakkoli, A., and Loffredo, D. (2016). "An integrated cyber-physical immersive virtual reality framework with applications to telerobotics", *International Symposium on Visual Computing* , Las Vegas (NV) , pp: 235 - 245.
25. Mc Fadden, D., Wilson, B., Tavakkoli, A., and Loffredo, D. (2016). "Automatic Environment Map Construction for Mixed Reality Robotic Applications", *International Symposium on Visual Computing* , Las Vegas (NV) , pp: 713-722.
26. Bounds, M., Wilson, B., Tavakkoli, A., and Loffredo, D. (2016). "An Integrated Architecture for Telerobotics Aided by Immersive Virtual Reality", *IEEE International Symposium on Human Robot Interactive Communication (RoMAN)* , New York (NY) , pp: 1-2.
27. Regenbrecht, J., Tavakkoli, A., and Loffredo, D. (2016). "An Intuitive Human Interface for Remote Operation of Robotic Agents in Immersive Virtual Reality Environments", *IEEE International Symposium on Human Robot Interactive Communication (RoMAN)* , New York (NY) , pp: 1-2.
28. Lasater, M., Vafa, S., and Tavakkoli, A. (2016). "Let the Games Begin! Or Not: Lessons Learned Utilizing On-line Fluency-

Building Games To Enhance Certification Exam Preparation for Teacher Education Students", *EdMedia+ Innovate Learning* , pp: 1222-1226.

29. Wilson, B., Bounds, M., and Tavakkoli, A. (2016). "A full-body motion calibration and retargeting for intuitive object manipulation in immersive virtual environments", *IEEE Workshop on Software Engineering and Architectures for Real-time Interactive Systems (SEARIS)* , Greensville (SC) , pp: 1-5.
30. Loffredo, D., and Tavakkoli, A. (2016). "Analyzing Motives, Preferences, and Experiences in Video Game Play", *Proceedings of World Multi-conference on Systemics, Cybernetics, and Informatics* , Orlando (FL) , pp: 1-6.
31. Wilson, B., Bounds, M., and Tavakkoli, A. (2016). "Real-Time Hand Motion Integration with Full Body Animation in Immersive Virtual Environments", *Proceedings of Software Engineering and Architectures for Real-time Interactive Systems Workshop (in conjunction w/ IEEE Virtual Reality Conference)* , Greenville (SC) , pp: 1-6.
32. Wilson, B., Bounds, M., and Tavakkoli, A. (2016). "A Full-Body Motion Calibration and Retargeting for Intuitive Object Manipulation in Immersive Virtual Environments", *Proceedings of IEEE Virtual Reality Conference* , Greenville (SC) .
33. Wilson, B., and Tavakkoli, A. (2015). "An Efficient Non-parametric Background Modeling Technique with CUDA Heterogeneous Parallel Architecture", *Proceedings of the International Symposium on Visual Computing* , Las Vegas (NV) , pp: 210-220.
34. Tavakkoli, A., Loffredo, D., and Ward, M. Sr. (2015). "What do Deep Statistical Analyses on Gaming Motivation and Game Characteristics Clusters Reveal about Targeting Demographics when Designing Gamified Contents?", *Proceedings of the World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI)* , Orlando (FL) , pp: 1-8.
35. Tavakkoli, A., Loffredo, D., and Ward, M. Sr. (2014). "Lessons from Game Studies to Enhance Gamification in Education", *Proceedings of the World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI)* , Orlando (FL) , pp: 1-6.
36. Lasater, M., Vafa, S., and Tavakkoli, A. (2014). "Utilizing On-line Fluency-Building Games to Enhance Certification Exam Preparation for Teacher Education Students", *E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* , New Orleans (LA) , pp: 1106-1109.
37. Brown, A., Tavakkoli, A., Loffredo, D., and Ehsan, H. (2013). "Integrating Interactive Level Design for iOS Assignment Delivery: Engaging Students with Technology", *Proceedings of the World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI)* , Orlando (FL) , pp: 1-6.
38. Akintola, K., and Tavakkoli, A. (2012). "A Novel Gait Recognition System Based on Hidden Markov Models", *Proceedings of the International Symposium on Visual Computing* , Crete (GR) , pp: 125-134.
39. Akintola, K., and Tavakkoli, A. (2011). "Robust Foreground Detection in Videos using Adaptive Color Histogram Thresholding and Shadow Removal", *Proceedings of the International Symposium on Visual Computing* , Las Vegas (NV) , pp: 496-505.
40. Tavakkoli, A., and Loffredo, D. (2011). "Efficient Video Surveillance with Intent Recognition", *Proceedings of the World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI)* , Orlando (FL) , pp: 1-6.
41. Tavakkoli, A., Nicolescu, M., and Bebis, G. (2010). "A Spatio-Spectral Algorithm for Robust and Scalable Object Tracking in Videos", *Proceedings of the International Symposium on Visual Computing* , Las Vegas (NV) , pp: 161-170.
42. Ambardekar, A., Tavakkoli, A., Nicolescu, M., and Nicolescu, M. (2010). "A Developmental Framework for Visual Learning in Robotics", *Proceedings of the International Conference on Image Processing, Computer Vision, and Pattern Recognition* , Las Vegas (NV) , pp: 382-387.
43. Kelley, R., Tavakkoli, A., King, C., Ambardekard, A., Nicolescu, M., and Nicolescu, M. (2010). "Integrating Context into Intent Recognition Systems", *Proceedings of the International Conference on Informatics in Control, Automation and Robotics* , Madeira (SP) , pp: 315-320.
44. Amayeh, G., Tavakkoli, A., and Bebis, G. (2009). "Accurate and Efficient Computation of Gabor Features in Real-time Applications", *Proceedings of the International Symposium on Visual Computing* , Las Vegas (NV) , pp: 243-252.
45. Tavakkoli, A., Nicolescu, M., Nicolescu, M., and Bebis, G. (2008). "Efficient Background Modeling Through Incremental Support Vector Data Description", *Proceedings of the International Conference on Pattern Recognition* , Tampa(FL) .
46. Scalzo, F., Bebis, G., Nicolescu, M., Loss, L., and Tavakkoli, A. (2008). "Feature Fusion Hierarchies for Gender Classification", *Proceedings of the International Conference on Pattern Recognition* , Tampa (FL) , pp: 1-4.
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51. Amayeh, G., Kasaei, S., Bebis, G., Tavakkoli, A., and Veropoulos, K. (2007). "Improvements of Zernike Moment Descriptors on Affine Transformed Shapes", *Proceedings of the International Symposium on Signal Processing and its Applications (ISSPA07)* , Dubai (UAE) , pp: 1-4.
52. Tavakkoli, A., Ambardekar, A., Nicolescu, M., and Louis, S. (2007). "A Genetic Approach to Training Support Vector Dada Descriptors for Background Modeling in Video Data", *Proceedings of the International Symposium on Visual Computing* , Lake Tahoe (NV) , pp: 318-327.
53. Tavakkoli, A., Nicolescu, M., and Bebis, G. (2006). "A Novelty Detection Approach for Foreground Region Detection in Videos with Quasi-stationary Backgrounds", *Proceedings of the International Symposium on Visual Computing* , Lake Tahoe (NV) , pp: 40-49.
54. Tavakkoli, A., Nicolescu, M., and Bebis, G. (2006). "Robust Recursive Learning for Foreground Region Detection in Videos with Quasi-Stationary Backgrounds", *Proceedings of the International Conference on Pattern Recognition* , Hong Kong (PRC) , pp: 315-318.
55. Tavakkoli, A., Nicolescu, M., and Bebis, G. (2006). "Automatic Statistical Object Detection for Visual Surveillance", *Proceedings of the IEEE Southwest Symposium on Image Analysis and Interpretation* , Denver (CO) , pp: 144-148.
56. Tavakkoli, A., Nicolescu, M., and Bebis, G. (2005). "Automatic Robust Background Modeling Using Multivariate Non-Parametric Kernel Density Estimation for Visual Surveillance", *Proceedings of the International Symposium on Visual Computing* , Lake Tahoe (NV) , pp: 363-370.
57. Tavakkoli, A., Amayeh, G., and Kasaei, S. (2004). "A Fast VOP Extraction Technique Based on Wavelet and Watershed Segmentation", *Proceedings of the Iranian Conference on Electrical Engineering* , Mashhad (IR) , pp: 1-6.
58. Tavakkoli, A., Kasaei, S., and Amayeh, G. (2004). "A Fast and Efficient Video Object Plane Extraction Method based on Watershed Segmentation", *Proceedings of the International Workshop on Computer Vision* , Tehran (IR) , pp: 1-4.
59. Amayeh, G., Kasaei, S., and Tavakkoli, A. (2004). "A Modified Algorithm to Obtain Translation, Rotation And Scale Invariant Zernike Moment Shape Descriptors", *Proceedings of the International Workshop on Computer Vision* , Tehran (IR) , pp: 1-4.

Technical Reports

1. Tavakkoli, A. (2009). *A Non- Parametric Framework for Object Tracking in Videos with Quasi-Stationary Backgrounds*, University of Nevada, Reno, (Doctoral Dissertation).
2. Tavakkoli, A. (2006). *Segmentation for Videos with Quasi-Stationary Backgrounds – A Non-Parametric Approach*, University of Nevada, Reno, (Masters Thesis).
3. Tavakkoli, A. (2004). *Content Based Video Compression with Application to Distance Learning*, Sharif University of Technology, Tehran, (Masters Thesis).
4. Kasaei, S., Amayeh, G., and Tavakkoli, A. (2003). *Fingerprint Authentication*, Sharif University of Technology, Tehran, (Masters Thesis).
5. Tavakkoli, A., and Dehghan E. (2001). *Designing a Microprocessor with FPGA*, Sharif University of Technology, Tehran, (Undergraduate Thesis).

Invited Talks

1. Tavakkoli, A. (2021). *EyeSightQuest: Correcting Non-Refractive Errors with Extended Reality*, (To: NVRIC Board), Reno:NV.
2. Tavakkoli, A. (2018). *VETO: An Infrastructure for Efficient Telerobotics and Telepresence through Immersive Virtual Reality*, (To: Computer Science and Engineering Department at the University of Nevada, Reno), Reno:NV.
3. Tavakkoli, A. (2016). *Immersive Virtual Reality Environments and Their Application in Telerobotics*, (To: Department of Computer Science and Engineering at Texas State University), San Marcos:TX.
4. Tavakkoli, A. (2016). *Efficient Telerobotics through Immersive Virtual Reality*, To: Department of Computer Science at California State University, Chico), Chico:CA.
5. Tavakkoli, A. (2016). *Telepresense for Efficient Telerobotics through Immersive Virtual Reality*, (To: College of Computing and Digital Media at DePaul University), Chicago:IL.
6. Tavakkoli, A. (2014). *Science Faction Panel: Immersive Virtual Reality for Remote Robotics*, (Keynote: Comicpalooza), Houston:TX.
7. Tavakkoli, A. (2014). *Advanced Visualization Engineering Laboratory*, (To: School of Arts and Sciences at the University of Houston-Victoria), Victoria:TX.

8. Tavakkoli, A. (2012). *UDK for "Unreal" Surveillance Research: A Quantitative Study*, (Keynote: Power on for Texas Film, Interactive & Tourism Conference), Corpus Christi:TX.
9. Tavakkoli, A. (2012). *Ninth Rock: Motion Capture Technologies in Digital Gaming and Simulation*, (Keynote: Power on for Texas Film, Interactive & Tourism Conference), Corpus Christi:TX.
10. Tavakkoli, A. (2010). *Using Virtual Environments in Research*, (Keynote: SLActions Conference), Houston:TX.
11. Tavakkoli, A. (2009). *Object Tracking in Videos, Challenges, Approaches, and Applications*, (To: University of Central Arkansas), Conway:AR.

Student Advising

Doctoral Committee Chair

Admitted to Candidacy

2022 - **Chenxing Wang (CSE)** — *University of Nevada, Reno*
Dissertation: *Multi-Domain Anomaly Detection*

2021 - **Sharif Kamran (CSE)** — *University of Nevada, Reno*
Dissertation: *Multi-modal Multi-task Learning for Biomedical Image Synthesis, Segmentation, and Recognition*
co-Advisor: Dr. Sal Baker

2021 - **Nasif Zaman (CSE)** — *University of Nevada, Reno*
Dissertation: *Comprehensive Management of Visual Disorders using Mixed Reality Technologies*

Current

2022 - **Ryan Gorman (CSE)** — *University of Nevada, Reno*

2022 - **Chase Carten (CSE)** — *University of Nevada, Reno*
co-Advisor: Dr. Frederick Harris Jr.

2021 - **Gunner Stone (CSE)** — *University of Nevada, Reno*
co-Advisor: Dr. Jonathan Greenberg

2021 - **Prithul Sarker (CSE)** — *University of Nevada, Reno*

2021 - **Khondker Fariha Hossain (CSE)** — *University of Nevada, Reno*

Doctoral Committee Member

(2022) **Isayas Adhanom (CSE)** (Advisor: Dr. Eelke Folmer) — *University of Nevada, Reno*
Dissertation/Thesis: *Exploring Adaptation-Based Techniques to Create Comfortable Virtual Reality Experiences*

(2020) **Pourya Hoseini (CSE)** (Advisor: Dr. Mircea Nicolescu) — *University of Nevada, Reno*
Dissertation/Thesis: *Active Dual-Camera Object Detection for a Humanoid Robotic Platform*

2019 - **Shuvo Kumar Paul (CSE)** (Advisor: Dr. Mircea Nicolescu) — *University of Nevada, Reno*
Dissertation/Thesis: *Integration of Multimodal Inputs and Interaction Interfaces for Generating Reliable Human-Robot Collaborative Task Configurations*

2019 - **Ashutosh Singandhupe (CSE)** (Advisor: Dr. Jim La) — *University of Nevada, Reno*
Dissertation/Thesis: *SLAM Techniques with Security Aspects*

2019 - **Prithul Aniruddha (CSE)** (Advisor: Dr. Eelke Folmer) — *University of Nevada, Reno*
Dissertation/Thesis: *Towards making teleportation a better default for VR locomotion*

(2019) **Ebrahim Emami (CSE)** (Advisor: Dr. George Bebis) *University of Nevada, Reno*
Dissertation/Thesis: *Deep Convolutional Neural Networks Based Single Image Super-Resolution and Classification for Crater Detection*

Master's Committee Chair

2021 - **Sushmita Sarker (CSE)** *University of Nevada, Reno*
Thesis: *3D Model Estimation for Outdoor Remote Sensing Data*

(2021) **Nasif Zaman (CSE)** *University of Nevada, Reno*
Thesis: *EyeSightVR: An Immersive and Automated Tool for Comprehensive Assessment of Visual Function*

(2020) **Sharif Amit Kamran (CSE)** *University of Nevada, Reno*
Thesis: *Generative Adversarial Networks for Synthesizing Medical Images of Multiple Modalities* co-Advisor: Dr. Sal Baker

(2020) **Lee Easson (CSE)** *University of Nevada, Reno*
Thesis: *Silvan: An Immersive Software for Visualization and Mensuration of 3D LiDAR Point Clouds* co-Advisor: Dr. Jonathan Greenberg

(2020) **Ummah Hafsa Billah (CSE)** *University of Nevada, Reno*
Thesis: *Anomaly Detection for Remote Civil Infrastructure Inspection* co-Advisor: Dr. Jim La

(2019) **Sean Simmons (CS)** *University of Houston-Victoria*
Thesis: *Enhanced Activity Recognition via Gesture and Intent Recognition through Sensory Fusion*

(2018) **Loveth Ohenhen (CS)** *University of Houston-Victoria*
Thesis: *Influence of Error on Trust in Human-Robot Team Interaction*

(2017) **Brandon Wilson (CS)** *University of Houston-Victoria*
Thesis: *Advances in Robotic Tele-operation: from Visual Odometry Acceleration to 3D Environment Visualization*

(2016) **Matthew Bounds (CS)** *University of Houston-Victoria*
Thesis: *A Framework for Immersive Virtual Tele-Presence with Application to Tele-Robotics*

(2016) **Jonathan Gaynor (CS)** *University of Houston-Victoria*
Thesis: *Turning Movement Count by Line Violation: Shifting from Vision to Lines*

(2014) **Alvin Ikpesa (CS)** *University of Houston-Victoria*
Thesis: *Addressing Cloud-computing Security Challenges (Lightweight Directory Access Protocol & Single Sign-On)*

(2013) **Yuju Wang (CS)** *University of Houston-Victoria*
Thesis: *Research and Implementation on Key Technologies of Navigation of Mobile Robot*

(2012) **Anson Brown (CS)** *University of Houston-Victoria*
Thesis: *Interactive Level Design for Serious Gaming: Online Assignment Delivery for iOS*

(2011) **Rose Mary Roy (CS)** *University of Houston-Victoria*
Thesis: *Genetic Algorithm for finding the Best Classifier: A Pattern Recognition Problem*

Honors & Awards

2016	**Outstanding Research and Scholarly Activity Award**, University of Houston - Victoria	*Victoria, TX*
2012	**Internal Research Award**, University of Houston - Victoria	*Victoria, TX*
2010	**Junior Faculty Summer Research Award**, University of Houston - Victoria	*Victoria, TX*
2008	**Outstanding International Graduate Student Award**, University of Nevada, Reno	*Reno, NV*
2007	**Outstanding International Graduate Student Award**, University of Nevada, Reno	*Reno, NV*
2007	**NEVADA NSF EPSCoR Graduate Research Fellowship**, University of Nevada, Reno	*Reno, NV*
2006	**NEVADA NSF EPSCoR Graduate Research Fellowship**, University of Nevada, Reno	*Reno, NV*
2004	**Top 2% Graduate Student in Electrical Engineering Department**, Sharif University of Technology	*Tehran, Iran*
2001	**Top 1% in the Nationwide Graduate Electrical Engineering Olympiad**, Sharif University of Technology	*Tehran, Iran*
1996	**Top 1% in the Nationwide Undergrad University Entrance Exam**, Sharif University of Technology	*Tehran, Iran*
1996	**2nd in the Nationwide High School Graduation Exams**, High School	*Kerman, Iran*

Synergistic Activity

University Service

Department of Computer Science and Engineering *University of Nevada, Reno*
Faculty Member *Jul. 2018 - Present*

Committee Chair Colloquium Committee (2022) · Faculty Evaluations (2021) · Graduate Studies (2020)

Committee Member Curriculum Committee (2022-present) · Colloquium Committee (2022-present) · Faculty Evaluation Committee (2019-2021) · Graduate Studies (2018-2020) · Lecturer in CS Search (2019-2021) · Tenure-Track Faculty Search (2019-2022)

Training Support Mentoring Mentors Workshop (2019) · Grad-778 Main Organizer (2021) · Grad-778 Instructional Support (2019-2020) · Research Experience for Teachers Speaker (2019)

Director NIH COBRE CMA Core (2022-present) · Human - Machine Perception Laboratory (2018-present)

School of Arts and Sciences *University of Houston-Victoria*
Faculty Member *Jul. 2008 - Aug. 2018*

Committee Chair Faculty Computing Committee (2013-2017) · Graduate Studies Committee (2011-2013)

Committee Member Graduate Studies Committee Member (2011-2013) · Promotion and Tenure Committee (2015-2017) · Undergraduate Affairs Committee (2013-2015) · Faculty Advisory Committee on Technology (2013-2017) · Faculty Development Leave Committee (2009-2011) · 1st Year Academic Experience Steering Committee (2011-2013) · Senate Member from School of Arts and Sciences (2013-2015)

Director Digital Gaming and Simulation Program (2009-2018) · Graduate Studies in Computer Science (2011-2018) · Curriculum Assessment (2010-2018) · Math and Computer Science Awareness Day (2011-2018)

Community Service

Editorship
Journal

University of Nevada, Reno
Jul. 2020 - PRESENT

Academic Editor Computational and Mathematical Methods in Medicine (2022 - present)
URL: https://www.hindawi.com/journals/cmmm/

Guest Editor Sensors: Special Issue in Computer Vision for Remote Sensing and Infrastructure Inspection (ISSN 1424-8220)
URL: https://www.mdpi.com/journal/sensors/special_issues/CVRSII

Program Committee
Member

University of Nevada, Reno
Jul. 2009 - PRESENT

Committee Member International Symposium on Visual Computing (2009-present) · World Multiconference on Systemics, Cybernetics and Informatics (2010-2015)

Special Track Chair International Symposium on Visual Computing Sessions on:
Machine Learning in Ophthalmology (2022) · Vision for Remote Sensing and Infrastructure Inspection (2019) · Unmanned Autonomous Systems (2014)

Session Chair International Symposium on Visual Computing Sessions on:
Deep Learning (2021) · Virtual Reality (2021) · Deep Learning (2020) · Virtual Reality (2020) · Segmentation/Recognition (2019) · Virtual Reality (2019) · Virtual Reality (2018) · Computer Graphics (2018) · Virtual Reality (2016) · Computer Graphics (2016) · Biometrics (2015) · Segmentation (2015) · Motion and Tracking (2010 - 2011) · Feature Extraction and Matching (2009)

Review Panelist
Member

University of Nevada, Reno
Jul. 2013 - PRESENT

National Science Foundation Division of Computer and Information Science and Engineering (CISE):
Core Medium (2021) · Core Small (2020) · Core Medium (2020) · CRII (2019) · Core-Small (2019) · Core Small (2018) · Core Small (2017) · Core Small (2016) · GRFP (2016) · Core Small (2015) · GRFP (2014) · Core Small (2013)

National Science Foundation Division of Undergraduate Education (EHR/DUE):
S-STEM (2017-2019)

Department of Defense Division of Computational Sciences (2014-present)

NASA AS-ASTAR Fellowship Panel (2017)

Article Review Virtual Reality Journal · Sensors · Pattern Recognition Letters · International Journal on Pattern Recognition · International Journal on Artificial Intelligence Tools · IEEE Transactions on Multimedia · IEEE Transactions on Cybernetics · IEEE Transactions on Circuits and Systems for Video Technology · IEEE Transactions on Instrumentation and Measurements · IEEE International Conference on Robotics and Automation · IEEE Transactions on Image Processing · International Journal of Advanced Robotics Systems · International Journal of Computer Vision and Image Understanding · International Journal of Electrical and Computer Engineering · International Workshop on Applications of Computer Vision · IEEE Transactions on Pattern Analysis and Machine Intelligence · International Conference on Pattern Recognition · International Computer Society of Iran Computer Conference · International Signal-Image Technologies and Internet-Based Systems · International Symposium on Visual Computing

Teaching

University of Nevada, Reno
Computer Science and Engineering

CSE Department
Jul. 2018 - PRESENT

2022 CS 487/687: Fundamentals of Deep Learning · CS 382-Fundamentals of Game Design · CS 791-Mass Detection in Mammograms · CS 791-Interactive Mixed Environments

2021 CS 487/687: Fundamentals of Deep Learning · CS 382-Fundamentals of Game Design

2020 CS 491/691-Special Topics: Deep Learning

2019 CS 791-Computer Vision Research · CS 485/695-Computer Vision · CS 382-Fundamentals of Game Design

University of Houston-Victoria
Computer Science

CS Department
Sep. 2009 - Aug. 2018

2018 GMNG 4316-Advanced Level Design

2017 COSC 6346-Automata and Formal Languages · GMNG 4340-Gaming Senior Project (4.8) · COSC COSC 6338-Parallel Programming (4.4)

2016 GMNG 4322-AI and Behavioral Modeling · GMNG 4316-Advanced Level Design (4.8) · COSC COSC 6346-Automata and Formal Languages (4.6) · COSC 4314-Game Networks Architecture (4.4)

2015 GMNG 3310-3D Modeling (5.0) · GMNG 4316-Advanced Level Design (5.0) · COSC 6346-Automata and Formal Languages (4.6) · COSC 4314-Game Networks Architecture (4.4) · COSC 6341/4341-Internet Computing (4.7) · COSC 6338-Parallel Programming (4.6) · COSC 6343/4322-AI And Behavioral Modeling (4.8)

2014 GMNG 3210-3D Modeling (5.0) · GMNG 4318-Advanced Animation (5.0) · COSC 6346-Automata and Formal Languages (5.0) · COSC 4314-Game Networks Architecture (4.4) · COSC 6341/4341-Internet Computing (4.8) · COSC 6338-Parallel Programming (5.0) · COSC 4322-AI And Behavioral Modeling (4.4) · COSC 1437-Fundamentals of Programming II (4.6)

2013 GMNG 3310-3D Modeling (4.8) · GMNG 4340-Gaming Senior Project (5.0) · GMNG 4317-Art for Gaming (4.5) · GMNG 4314-Game Networks Architecture (4.6) · GMNG 4316-Advanced Level Design (4.5) · COSC 6341/4341-Internet Computing (4.7) · COSC 4322-AI And Behavioral Modeling (4.2) · COSC 1437-Fundamentals of Programming II (4.5) · COSC 1436-Fundamentals of Programming I (4.5)

2012 GMNG 4312-Game Engines Architecture (5.0) · GMNG 4340-Gaming Senior Project (5.0) · GMNG 4317-Art for Gaming (4.5) · GMNG 6314/4314-Fundamentals of Game Networks Architecture (5.0) · GMNG 4318-Advanced Animation (5.0) · GMNG 4316-Advanced Level Design (5.0) · COSC 6338-Parallel Programming (5.0) · COSC 6343-Intelligent Agents and Applications (4.9) · COSC 1436-Fundamentals of Programming I (4.7)

2011 GMNG 3310-3D Modeling (4.9) · GMNG 4340-Gaming Senior Project (5.0) · GMNG 4317-Art for Gaming (4.5) · COSC 6310-Multimetida Programming (4.3) · COSC 6341/4341-Internet Computing (4.7) · GMNG 6343-Intelliegent Agents and Applications (5.0) · COSC 1301-Technology and Problem Solving (4.4) · COSC 4322-AI and Behavioral Modeling (5.0) · COSC 1436-Fundamentals of Programming I (4.7)

2010 GMNG 6343-Intelliegent Agents and Applications (4.8) · COSC 6341/4341-Internet Computing (4.9) · COSC 1301-Technology and Problem Solving (4.4) · ISC 6329-Data Maining and Data Warehousing (4.7) · GAM 4316-Advanced Level Design (4.5) · ISC 4340-Client Server Computing (4.2)

2009 ISC 6310-Multimetida Programming (4.5) · ISC/GAM 4322-AI And Behavioral Modeling (5.0) · ISC 4300-Specital Topic:Computer Vision (4.5)

References

References are available upon request.