Dr. Vangelis Metsis

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Computer Science
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Professional Positions

Associate Professor, Texas State University. (September 2020 - Present).

Assistant Professor, Texas State University. (September 2014 - August 2020).

Faculty Research Associate, The University of Texas at Arlington. (January 2012 - August 2014).

Webmaster/Systems Administrator, The University of Texas at Arlington. (June 2008 - August 2014).

Graduate Research Assistant, The University of Texas at Arlington. (September 2007 - December 2011).

Research Associate, National Center for Scientific Research (NCSR) "Demokritos". (March 2006 - August 2007).

Webmaster, Athens University of Economics and Business. (February 2006 - June 2007).

Systems Administrator, Athens University of Economics and Business. (February 2005 - August 2005).

Education

PHD, University of Texas at Arlington, 2011.
Major: Computer Science

BS, University of Athens, Greece, 2005.
Major: Computer Science

Professional Memberships

Association for Computer Machinery. (November 2020 - Present).

Institute of Electrical and Electronics Engineers. (2013 - Present).

Awards and Honors

Alpha Chi Favorite Professor, Alpha Chi National Honor Society. (November 20, 2020).

NSF Advancing Health Through Science Workshop - Aspiring PI Travel Award, National Science Foundation. (January 6, 2020 - January 7, 2020).

College of Science and Engineering Excellence in Teaching Award, Texas State University - College of Science and Engineering (CoSE). (2019).

PETRA Conference, NSF Student Travel Award, NSF. (May 1, 2008 - June 30, 2011).

Q-Invest Graduate Student Fellowship, Q-Invest Company. (September 1, 2008 - December 31, 2008).

Demokritos Research Fellow, National Center for Scientific Research "Demokritos" - Athens, Greece. (March 1, 2006 - July 31, 2007).

Honored talk at the B.Sc. graduation ceremony, Athens University of Economics and Business. (November 11, 2005).

Media Appearances and Interviews

Texas State Big Ideas. (December 2020).

TXST Faculty Research Spotlight. (October 27, 2020).

Publications

Hinkle, L. B., & Metsis, V. (2023). *An LLVM-Inspired Framework for Unified Processing of Multimodal Time-Series Data*. 91–94. https://doi.org/https://doi.org/10.1145/3594806.3594812

Hinkle, L. B., Pedro, T., Lynn, T., Atkinson, G. M., & Metsis, V. (2023). *Assisted Labeling Visualizer (ALVI): A Semi-Automatic Labeling System For Time-Series Data*. 1–5. https://doi.org/10.1109/ICASSPW59220.2023.10193169

Hinkle, L. B., Atkinson, G. M., & Metsis, V. (2023). *Fusion of Learned Representations for Multimodal Sensor Data Classification*. 404–415. https://link.springer.com/chapter/10.1007/978-3-031-34111-3_34

Katrompas, A., & Metsis, V. (2023). *Temporal Attention Signatures for Interpretable Time-Series Prediction*. 268–280. https://link.springer.com/chapter/10.1007/978-3-031-44223-0_22

Li, X., Nabati, R., Singh, K., Corona, E., Metsis, V., & Parchami, A. (2023). *EMOD: Efficient Moving Object Detection via Image Eccentricity Analysis and Sparse Neural Networks*. 51–59. https://doi.org/https://doi.org/10.1109/WACVW58289.2023.00010

Byers, M., Trahan, M. H., Nason, E. E., Eigege, C., Moore, N., Washburn, M., & Metsis, V. (2023). Detecting Intensity of Anxiety in Language of Student Veterans with Social Anxiety Using Text Analysis. *Journal of Technology in Human Services*, *41*(2), 125–147. https://doi.org/https://doi.org/10.1080/15228835.2022.2163452

Hinkle, L. B., & Metsis, V. (2022). Individual Convolution of Ankle, Hip, and Wrist Data for Activities-of-Daily-Living Classification. *18th International Conference on Intelligent Environments (IE 2022)*. Published. https://doi.org/10.1109/IE54923.2022.9826781

Katrompas, A., Ntakouris, T., & Metsis, V. (2022). Recurrence and Self-attention vs the Transformer for Time-Series Classification: A Comparative Study. *20th International Conference on Artificial Intelligence in Medicine (AIME 2022)*. Published. https://doi.org/https://doi.org/10.1007/978-3-031-09342-5_10

Li, X., & Metsis, V. (2022). SPP-EEGNET: An Input-Agnostic Self-supervised EEG Representation Model for Inter-dataset Transfer Learning. *18th International Conference on Computing and Information Technology (IC2IT 2022)*. Published. https://doi.org/https://doi.org/10.1007/978-3-030-99948-3_17

Byers, M., Hinkle, L. B., & Metsis, V. (2022). Topological Data Analysis of Time-Series as an Input Embedding for Deep Learning Models. *18th International Conference on Artificial Intelligence Applications and Innovations (AIAI 2022)*, 402–413. https://doi.org/https://doi.org/10.1007/978-3-031-08337-2_33

Li, X., Metsis, V., Wang, H., & Ngu, H. H. (2022). *TTS-GAN: A Transformer-based Time-Series Generative Adversarial Network*. Published. https://doi.org/0.1007/978-3-031-09342-5_13

Ngu, A., Metsis, V., Coyne, S., Srinivas, P., Mahmud, T., & Chee, K. (2022). Personalized Watch-based Fall Detection Using a Collaborative Edge-Cloud Framework. *Internal Journal of Neural Systems*, *32*(12). https://doi.org/10.1142/s0129065722500484

Blakeney, C., Atkinson, G., Huish, N., Yan, Y., Metsis, V., & Zong, Z. (2022, October). *Measuring Bias and Fairness in Multiclass Classification*. Published.

Byers, M., & Metsis, V. (2021). Text Analysis for Understanding Symptoms of Social Anxiety in Student Veterans. *Proceedings of the AAAI Conference on Artificial Intelligence*, *35*(18), 15958--15959.

Atkinson, G. M., & Metsis, V. (2021). A Survey of Methods for Detection and Correction of Noisy Labels in Time Series Data. *17th IFIP International Conference on Artificial Intelligence Applications and Innovations*, 479--493.

Katrompas, A., & Metsis, V. (2021). Enhancing LSTM Models with Self-attention and Stateful Training. *Proceedings of SAI Intelligent Systems Conference (IntelliSys 2021)*, 217--235.

Hinkle, L. B., & Metsis, V. (2021). Model Evaluation Approaches for Human Activity Recognition from Time-Series Data. *19th International Conference on Artificial Intelligence in Medicine (AIME 2021)*, 209--215.

Katrompas, A., & Metsis, V. (2021). Rate My Professors: A Study Of Bias and Inaccuracies In Anonymous Self-Reporting. *2021 2nd International Conference on Computing and Data Science (CDS)*, 536--542.

Atkinson, G. M., & Metsis, V. (2021). TSAR: a time series assisted relabeling tool for reducing label noise. *14th PErvasive Technologies Related to Assistive Environments Conference*. Published.

Ngu, H. H., Coyne, S., Srinivas, P., & Metsis, V. (. (2021). Collaborative Edge-Cloud Computing for Personalized Fall Detection. *Artificial Intelligence Applications and Innovations. AIAI 2021*, 323–336. https://doi.org/https://doi.org/10.1007/978-3-030-79150-6_26

Trahan, M. H., Morley, R. H., Nason, E. E., Rodrigues, N. A., Huerta, L., & Metsis, V. (2021). Virtual reality exposure simulation for student veteran social anxiety and PTSD: A case study. *Clinical Social Work Journal*, *49*(2), 220–230. https://doi.org/https:/doi.org/10.1007/s10615-020-00784-7

Ngu, H. H., Metsis, V., Coyne, S., Chung, B., Pai, R., & Chang, J. (2020). Personalized Fall Detection System. *2020 IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops)*, 1–7. https://doi.org/10.1109/PerComWorkshops48775.2020.9156172

Mauldin, T. R., Ngu, A. H. H., Metsis, V., & Canby, M. (2020). Ensemble Deep Learning on Wearables Using Small Datasets. *ACM Transactions on Computing for HealthCare*, *2*. https://doi.org/https://doi.org/10.1145/3428666

Atkinson, G. M., & Metsis, V. (2020). Identifying label noise in time-series datasets. *2020 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2020 ACM International Symposium on Wearable Computers*, 238–243. https://doi.org/https://doi.org/10.1145/3410530.3414366

Koutitas, G., Kumar, V., & Metsis, V. (2019). In-Situ Wireless Channel Visualization Using Augmented Reality and Ray Tracing. *Sensors Journal, 2020, 20, 690*. Published.

Nason, E. E., Trahan, M. H., Smith, K. S., Metsis, V., & Selber, S. K. (2019). Virtual treatment for veteran social anxiety disorder: A comparison of 360° video and 3D virtual reality. *Journal of Technology in Human Services*, *38*(3), 288–308. https://doi.org/10.1080/15228835.2019.1692760

Mauldin, T., Ngu, A., Metsis, V., Canby, M., & Tesic, J. (2019). Experimentation and Analysis of Ensemble Deep Learning in IoT Applications. *Open Journal of Internet of Things (OJIOT)*, *5*(1), 133–149. http://nbn-resolving.de/urn:nbn:de:101:1-201808051930495128214 8

Koutitas, G., Metsis, V., Lawrence, G. B., Smith, K. S., & Trahan, M. H. (2019, June). *A Virtual and Augmented Reality Platform for the Training of First Responders of the Ambulance Bus*. Published.

Hinkle, L. B., Khoshhal, K., & Metsis, V. (2019, June). Physiological Measurement for Emotion Recognition in Virtual Reality. *Proceedings of the 2nd International Conference on Data Intelligence and Security (ICDIS 2019)*. Published. https://doi.org/https://doi.org/10.1109/ICDIS.2019.00028

Metsis, V., Lawrence, G. B., Trahan, M. H., Smith, K. S., Tamir, D., & Selber, S. K. (2019). 360 Video: A Prototyping Process for Developing Virtual Reality Interventions. *Journal of Technology in Human Services*, *37*, 32–50. https://doi.org/https://doi.org/10.1080/15228835.2019.1604291

Metsis, V., Lawrence, G. B., Trahan, M. H., Smith, K. S., & Tamir, D. (2019). Virtual Reality Environments for Returning Combat Veteran Social Anxiety and PTSD: Rapid Prototyping Methodologies for Intervention. *SSWR - Society for Social Work and Research*. Published. https://sswr.confex.com/sswr/2019/webprogram/Paper34417.html

Malhotra, A., Schizas, I. D., & Metsis, V. (2018). Correlation Analysis-Based Joint Segmentation and Classification of Human Activity. *IEEE Sensors Journal*, *18*(19), 8085–8095. https://doi.org/https://doi.org/10.1109/JSEN.2018.2864207

Trahan, M. H., Ausbrooks, A. R., Smith, S., Metsis, V., Berek, A., Trahan, L. H., & Selber, K. (2018). Experiences of student veterans with social anxiety: A qualitative study. *Social Work in Mental Health*, *17*(2), 197–221. https://doi.org/10.1080/15332985.2018.1522607

Mauldin, T. R., Canby, M. E., Metsis, V., Ngu, H. H., & Rivera, C. C. (2018). Smartfall: A smartwatch-based fall detection system using deep learning. *Sensors (Switzerland)*, *18*(10). https://doi.org/10.3390/s18103363

Huber, M., & Metsis, V. (2018, October 2). PerCom Workshops 2018 Welcome Page. *2018 IEEE International Conference on Pervasive Computing and Communications Workshops, PerCom Workshops 2018*. Published. https://doi.org/10.1109/PERCOMW.2018.8480261

Gobert, D. V. N., Metsis, V., & Smith, K. S. (2018, July). *Integration of virtual reality with an omnidirectional treadmill system for multi-directional balance skills intervention*. Published. https://doi.org/doi: 10.1109/WEROB.2017.8383831

Gobert, D., Metsis, V., & Smith, K. (2018). Integration of Virtual Reality with an Omnidirectional Treadmill System for Multi-directional Balance Skills Intervention. *IEEE XPLORE*. Published. https://doi.org/https://ieeexplore.ieee.org/document/8383831

Anderson, A., Hsiao, T., & Metsis, V. (2017, July). *Classification of Emotional Arousal During Multimedia Exposure*. Published.

Roudposhti, K. K., Dias, J., Peixoto, P., Metsis, V., & Nunes, U. (2016). A Multilevel Body Motion-based Human Activity Analysis Methodology. *IEEE Transactions on Cognitive and Developmental Systems*. Published.

Ngu, A. H., Gutierrez, M., Metsis, V., Nepal, S., & Sheng, M. Z. (2016). IoT Middleware: A Survey on Issues and Enabling technologies. *IEEE Internet of Things Journal*. Published.

Espiritu, H., & Metsis, V. (2015). Automated detection of sleep disorder-related events from polysomnographic data. *Healthcare Informatics (ICHI), 2015 International Conference on*, 562–569.

Ebert, D., Metsis, V., & Makedon, F. (2015). Development and evaluation of a unity-based, kinect-controlled avatar for physical rehabilitation. *Proceedings of the 8th ACM International Conference on PErvasive Technologies Related to Assistive Environments*, 88.

Papakostas, M., Staud, J., Makedon, F., & Metsis, V. (2015). Monitoring breathing activity and sleep patterns using multimodal non-invasive technologies. *Proceedings of the 8th ACM International Conference on PErvasive Technologies Related to Assistive Environments*, 78.

Metsis, V., Schizas, I. D., & Marshall, G. (2015). Real-time subspace denoising of polysomnographic data. *Proceedings of the 8th ACM International Conference on PErvasive Technologies Related to Assistive Environments*, 77.

Lioulemes, A., Sassaman, P., Gieser, S. N., Karkaletsis, V., Makedon, F., & Metsis, V. (2015). Self-managed patient-game interaction using the barrett wam arm for motion analysis. *Proceedings of the 8th ACM International Conference on PErvasive Technologies Related to Assistive Environments*, 34.

Paulk, D., Metsis, V., McMurrough, C., & Makedon, F. (2014). A supervised learning approach for fast object recognition from RGB-D data. *Proceedings of the 7th International Conference on PErvasive Technologies Related to Assistive Environments*, 5.

Phan, S., Lioulemes, A., Lutterodt, C., Makedon, F., & Metsis, V. (2014). Guided physical therapy through the use of the barrett wam robotic arm. *Haptic, Audio and Visual Environments and Games (HAVE), 2014 IEEE International Symposium on*, 24–28.

Gieser, S. N., Metsis, V., & Makedon, F. (2014). Quantitative evaluation of the kinect skeleton tracker for physical rehabilitation exercises. *Proceedings of the 7th International Conference on Pervasive Technologies Related to Assistive Environments*, 48.

Lioulemes, A., Galatas, G., Metsis, V., Mariottini, G. L., & Makedon, F. (2014). Safety challenges in using AR. Drone to collaborate with humans in indoor environments. *Proceedings of the 7th International Conference on PErvasive Technologies Related to Assistive Environments*, 33.

Metsis, V., Makedon, F., Shen, D., & Huang, H. (2014). DNA copy number selection using robust structured sparsity-inducing norms. *IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)*, *11*(1), 138–181.

Metsis, V., Kosmopoulos, D., Athitsos, V., & Makedon, F. (2014). Non-invasive analysis of sleep patterns via multimodal sensor input. *Personal and Ubiquitous Computing*, *18*(1), 19–26.

Zikos, D., Galatas, G., Metsis, V., & Makedon, F. (2013). A web ontology for brain trauma patient computer-assisted rehabilitation. *ICIMTH*, 100–102.

Papangelis, A., Gatchel, R., Metsis, V., & Makedon, F. (2013). An adaptive dialogue system for assessing post traumatic stress disorder. *Proceedings of the 6th International Conference on Pervasive Technologies Related to Assistive Environments*, 49.

Metsis, V., Jangyodsuk, P., Athitsos, V., Iversen, M., & Makedon, F. (2013). Computer aided rehabilitation for patients with rheumatoid arthritis. *Computing, Networking and Communications (ICNC), 2013 International Conference on*, 97–102.

Gardner, M., Metsis, V., Becker, E., & Makedon, F. (2013). Modeling the effect of attention deficit in game-based motor ability assessment of Cerebral Palsy patients. *Proceedings of the 6th International Conference on PErvasive Technologies Related to Assistive Environments*, 65.

McMurrough, C. D., Metsis, V., Kosmopoulos, D., Maglogiannis, I., & Makedon, F. (2013). A dataset for point of gaze detection using head poses and eye images. *Journal on Multimodal User Interfaces*, *7*(3), 207–215.

Vyas, K. B., Metsis, V., & Makedon, F. (2013). Aria: Getting started quickly. *Computer Science Undergraduate Research Journal*, *1*.

McMurrough, C. D., Metsis, V., Kosmopoulos, D., Maglogiannis, I., & Makedon, F. (2013). A Dataset for Point of Gaze Detection using Head Poses and Eye Images. *Journal on Multimodal User Interfaces*, *7*(3), 207–215. https://doi.org/http://dx.doi.org/10.1007/s12193-013-0121-4

Metsis, V., Makedon, F., Shen, D., & Huang, H. (2013). DNA Copy Number Selection Using Robust Structured Sparsity-Inducing Norms. *IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)*, *11*(1), 168–181. https://doi.org/http://dx.doi.org/10.1109/TCBB.2013.141

Zhang, Z., Liu, W., Metsis, V., & Athitsos, V. (2012). A viewpoint-independent statistical method for fall detection. *Pattern Recognition (ICPR), 2012 21st International Conference on*, 3626–3630.

McMurrough, C. D., Metsis, V., Rich, J., & Makedon, F. (2012). An eye tracking dataset for point of gaze detection. *Proceedings of the Symposium on Eye Tracking Research and Applications*, 305–308.

McMurrough, C., Rich, J., Metsis, V., Nguyen, A., & Makedon, F. (2012). Low-cost head position tracking for gaze point estimation. *Proceedings of the 5th International Conference on PErvasive Technologies Related to Assistive Environments*, 22.

Metsis, V. (2012). *A Computational Framework For Human-Centered Multimodal Data Analysis*. Published.

Dela Rosa, K., Metsis, V., & Athitsos, V. (2012). Boosted ranking models: a unifying framework for ranking predictions. *Knowledge and Information Systems*, *30*(3), 543–568.

Metsis, V., Huang, H., Andronesi, O. C., Makedon, F., & Tzika, A. (2012). Heterogeneous data fusion for brain tumor classification. *Oncology Reports*, *28*(4), 1413.

Ferdous, S., Metsis, V., Galatas, G., Huang, H., Basco, M., Fegaras, L., & Makedon, F. (2011). *Automatic Depression Assessment from Speech Records*. ICICTH.

Metsis, V., Andronesi, O., Huang, H., Mindrinos, M., Rahme, L., Makedon, F., & Tzika, A. (2011). Combination of sparse and wrapper feature selection from multi-source data for accurate brain tumor typing. *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 19th Annual Meeting Exhibition*, 7–13.

Metsis, V., Galatas, G., Papangelis, A., Kosmopoulos, D., & Makedon, F. (2011). Recognition of sleep patterns using a bed pressure mat. *Proceedings of the 4th International Conference on PErvasive Technologies Related to Assistive Environments*, 9.

Doukas, C., Metsis, V., Becker, E., Le, Z., Makedon, F., & Maglogiannis, I. (2011). Digital cities of the future: Extending@ home assistive technologies for the elderly and the disabled. *Telematics and Informatics*, *28*(3), 176–190.

Park, K., Lin, Y., Metsis, V., Le, Z., & Makedon, F. (2010). Abnormal human behavioral pattern detection in assisted living environments. *Proceedings of the 3rd International Conference on PErvasive Technologies Related to Assistive Environments*, 9.

Papangelis, A., Metsis, V., Shawe-Taylor, J., & Makedon, F. (2010). Sensor placement and coordination via distributed multi-agent cooperative control. *Proceedings of the 3rd International Conference on PErvasive Technologies Related to Assistive Environments*, 14.

Ahmad, I., Arora, R., White, D., Metsis, V., & Ingram, R. (2009). Energy-constrained scheduling of dags on multi-core processors. *International Conference on Contemporary Computing*, 592–603.

Metsis, V., Huang, H., Makedon, F., & Tzika, A. (2009). Heterogeneous data fusion to type brain tumor biopsies. *IFIP International Conference on Artificial Intelligence Applications and Innovations*, 233–240.

Metsis, V., Mintzopoulos, D., Huang, H., Mindrinos, M., Black, P., Makedon, F., & Tzika, A. (2009). *Multi-Source feature selection to improve multi-class brain tumor typing*. Published.

Arora, R., Metsis, V., Zhang, R., & Makedon, F. (2009). Providing QoS in ontology centered context aware pervasive systems. *Proceedings of the 2nd International Conference on PErvasive Technologies Related to Assistive Environments*, 8.

Becker, E., Metsis, V., Arora, R., Vinjumur, J., Xu, Y., & Makedon, F. (2009). SmartDrawer: RFID-based smart medicine drawer for assistive environments. *Proceedings of the 2nd International Conference on PErvasive Technologies Related to Assistive Environments*, 49.

Metsis, V., Le, Z., Lei, Y., & Makedon, F. (2008). Towards an evaluation framework for assistive environments. *Proceedings of the 1st International Conference on PErvasive Technologies Related to Assistive Environments*, 12.

Stamatakis, K., Metsis, V., Karkaletsis, V., Ruzicka, M., Svátek, V., Amigó, E., Pöllä, M., & Spyropoulos, C. (2007). Content collection for the labelling of health-related web content. *Conference on Artificial Intelligence in Medicine in Europe*, 341–345.

Villarroel, D., Mayer, M., Leis, A., Karkaletsis, V., Stamatakis, K., Metsis, V., Nasikas, P., Labsky, M., Ruzicka, M., Svátek, V., & others. (2007, October 1). *Assisting Quality Assessment (AQUA)–a system based on semantic web and information extraction technologies to support medical quality labelling agencies*. Published.

Karkaletsis, V., Stamatakis, K., Metsis, V., Redoumi, V., & Tsarouhas, D. (2006). Health-related Web Content: quality labelling mechanisms and the MedIEQ approach. *Proc 4th International Conference on Information Communication Technologies in Health (ICICTH 2006*. Published.

Metsis, V., Androutsopoulos, I., & Paliouras, G. (2006). Spam filtering with naive bayes-which naive bayes?. *CEAS*, *17*, 28–69.

Presentations

Metsis, V., 20th International Conference on Artificial Intelligence in Medicine (AIME 2022), "Recurrence and Self-attention vs the Transformer for Time-Series Classification: A Comparative Study,," Halifax, Canada, Halifax, Canada. (2022).

Metsis, V., 20th International Conference on Artificial Intelligence in Medicine (AIME 2022), "TTS-GAN: A Transformer-Based Time-Series Generative Adversarial Network," Halifax, Canada, Halifax, Canada. (2022).

Metsis, V., Department Colloquium, "Machine Learning Methods for Physiological BioSignal Analysis," Baylor University - Department of Physics, Baylor University, Waco, TX, Waco, TX. (November 10, 2021).

Metsis, V., 17th International Conference on Artificial Intelligence Applications and Innovations (AIAI 2021), "Modern methods and tools for human biosignal analysis," Crete, Greece, Creta, Greece. (June 27, 2021).

Rodrigues, N. A., Trahan, M. H., Morley, R. H., Nason, E. E., Metsis, V., Faculty/Student Research Forum, "A Case Study Evaluating Mobile Virtual Reality Exposure Therapy And Sleep Quality In A Student Veteran with PTSD And Social Anxiety," College of Health Professions, Texas State University. (April 15, 2021).

Trahan, M. H., Huerta, L. A., Metsis, V., Morley, R. H., Rodrigues, N. A., Nason, E. E., 25th Annual Society for Social Work and Research Conference, "A mobile-based virtual reality grocery store for reducing social anxiety in student veterans: A case study," Society for Social Work and Research, Virtual Conference. (January 2021).

Trahan, M. H., Huerta, L., Metsis, V., Morley, R. H., Nason, E. E., 25th Annual Society for Social Work and Research Conference, "A mobile-based virtual reality grocery store for reducing social anxiety in student veterans: A case study," Society for Social Work and Research, Virtual. (January 19, 2021).

Huerta, L. (Author), Metsis, V. (Author), Trahan, M. H. (Author), Morley, R. H. (Author), Nason, E. E. (Author), Women in Science and Engineering (WiSE) Conference 2020, "An Assessment of Autonomic Nervous System Responses in Veterans During Virtual Reality Exposure Therapy," Texas State University, Texas State University, San Marcos, United States. (March 6, 2020).

Metsis, V., 2020 Advancing Health Through Science Workshop, "Virtual Reality Mindfulness Intervention for Returning Combat Veterans," National Science Foundation - Smart Conneted Health Program, National Science Foundation at 2415 Eisenhower Avenue, Alexandria, VA, Washington, DC, United States. (January 6, 2020).

Nason, E. E., Trahan, M. H., Smith, K. S., Metsis, V., Selber, S. K., International Society for the Treatment of Traumatic Stress, "Virtual Treatment for Veteran Social Anxiety Disorder: A Case Study Comparison of 360° Video and 3D Virtual Reality," Boston, MA, United States. (November 2019).

Metsis, V., Lawrence, G., Trahan, M., Smith, K. S., Tamir, D., 23rd Annual Society for Social Work Research Conference, "Virtual reality environments for returning combat veteran social anxiety and PTSD: Rapid prototyping methodologies for intervention," Hilton San Francisco, San Francisco, CA, United States. (January 17, 2019).

Trahan, M. H., Nason, E. E., Metsis, V., Smith, K. S., Lawrence, G. B., Tamir, D., Society for Social Work and Research Annual Conference, "Virtual reality interventions for addressing family and community violence," San Francisco, CA. (January 17, 2019).

Metsis, V. N., "Machine Learning for Human-Centered Sensor Data Analysis," Advanced Micro Devices (AMD) Semiconductor company, AMD Austin, Austin, TX, United States. (October 2018).

Trahan, M., Ausbrooks, A. R., Smith, K. S., Metsis, V., Berek, A., Trahan, L., Selber, K., Military Social Work Conference, "The experiences of student veterans with social anxiety," University of Texas at Austin, Austin, TX. (September 6, 2018).

Smith, K. S., Lawrence, G. B., Koutitas, G., Trahan, M. H., Metsis, V., Lehr, T. F., Cayetano, M., Jadon, S., Martinez, L., Garrard, B., Smart Cities Connect Conference & Expo, "Just-in-time VR Training for Ambus EMS Personnel," US Ignite, NSF, Kansas City, MO, United States. (March 28, 2018).

Metsis, V., Dutch Delegation Event, "Just-in-time VR Training for EMS Ambus Personnel," The City of Austin, Mexican American Cultural Center. (October 2017).

Metsis, V., Dutch Delegation, "Just-in-time VR for EMS Ambus Personnel," City of Austin, Mexican American Cultural Center, Austin, United States. (October 26, 2017).

Makedon, F., Athitsos, V., Burzo, M., Mihalcea, R., Metsis, V., Zikos, D., Becker, E., Conly, C., PANEL: Creating Research Datasets and Tools, NSF (CRI) Sponsored, The 10th ACM International Conference on PErvasive Technologies Related to Assistive Environments (PETRA 2017), Corfu, Greece. (June 2017).

Metsis, V. (PI), Texas State University IRB, "IRB for MIRG grant." (October 31, 2016).

Metsis, V., 2015 Conference on Pervasive Technologies Related to Assistive Environments, "Real-Time Subspace Denoising of Polysomnographic Data." (July 3, 2015).

Metsis, V., NSF CISE Research Infrastructure (CRI) Planning Workshop, "Building a SMART-MOVE Repository," NSF, Arlington, TX, United States. (May 1, 2015).

Contract, Fellowships, Grants and Sponsored Research

Yang, K. (Principal), Ngu, H. H. (Co-Principal), Chen, X. (Supporting), Islam, T. Z. (Supporting), Metsis, V. (Supporting), Hou, T. (Supporting), Rathore, H. (Supporting), Wang, L. (Supporting), "REU Site: Research Experiences for Undergraduates in Edge Computing," Sponsored by National Science Foundation (NSF), Federal, $389,995.00. (March 1, 2022 - February 28, 2025).

Metsis, V. (Principal), Ngu, H. H. (Co-Principal), Gao, J. (Co-Principal), Shi, H. (Co-Principal), Guirguis, M. S. (Co-Principal), Gu, Q. (Co-Principal), "Graduate Assistance in Areas of National Need (GAANN),"

Sponsored by U.S. Department of Education, Federal, $728,150.00. (October 1, 2021 - September 30, 2024).

Metsis, V. (Principal), Ngu, H. H. (Co-Principal), Guirguis, M. S. (Supporting), Qasem, A. M. (Supporting), Hou, T. (Supporting), Lee, C. H. (Supporting), Rathore, H. (Supporting), Wang, L. (Supporting), "High Performance Computing GPU Server for Machine Learning Research," Sponsored by Materials Application Research Center (MARC), Texas State University, $49,512.00. (2022 - 2023).

Morley, R. H., Clary, K. L. (Co-Principal), Metsis, V. (Co-Principal), Trujillo, L. T., Smith, K. S., Goffnet, J. (Co-Principal), Gagnon, O., "Exploring Psychophysiological and Perceived Health-Related Behaviors During and After Gender Affirming and Non-Affirming Language Among Transgender People Within a Virtual Reality Setting," Sponsored by Multidisciplinary Internal Research Grant Program (MIRG), Texas State University, $28,110.00. (January 2021 - December 2023).

Metsis, V. (Principal), Guirguis, M. S., "REU Site: Research Experiences for Undergraduates in Smart & Connected Communities," Sponsored by National Science Foundation, Federal, $20,000.00. (July 2020 - April 30, 2023).

Metsis, V. (Principal), Ngu, A. (Co-Principal), "High-Performance Computing GPU Server for Machine Learning Research," Sponsored by MARC, Texas State University, $49,512.00. (September 20, 2022 - 2022).

Fulton, L. V. (Principal), Villagran, M. M. (Co-Principal), B. Z. (Co-Principal), Mendez, F. A. (Co-Principal), Ekin, T. (Co-Principal), Qasem, A. M. (Co-Principal), Konur, D. (Supporting), Alanis, E. (Supporting), Zihagh, F. (Supporting), Dong, Z. (Co-Principal), Shen, X. (Supporting), De Nadai, A. S. (Supporting), Zhu, Y. (Co-Principal), Hewitt, B. A. (Co-Principal), Valles Molina, D. (Supporting), White, A. (Supporting), Dolezel, D. M. (Supporting), Ioudina, V. (Supporting), Islam, T. Z. (Supporting), Lee, C. H. (Supporting), Metsis, V. (Supporting), Moradi, M. (Supporting), Gao, J. (Supporting), Li-Jen, L. (Supporting), Jones, D. (Supporting), Pham, V. (Supporting), Holt, M. (Supporting), Kyung An, M. (Supporting), Islam, A. (Supporting), Cho, H. (Supporting), Liu, Q. (Supporting), Liang, F. (Supporting), Topinka, J. B. (Supporting), "The Accelerating Credentials of Purpose and Value for the Texas Innovation Corridor (TIC) Consortium Grant," Sponsored by THECB, State, $1,450,000.00. (February 2022 - October 2022).

Zhu, J. (Principal), Shen, X. (Co-Principal), Bishop, N. J. (Co-Principal), Metsis, V. (Co-Principal), "Exploring Interaction of One-carbon Metabolism Nutrients Intakes and Genetic Susceptibility on Risk of Metabolic Syndrome among Multi-ethnic US Adults with Diverse Socio-demographic, Biomedical, and Lifestyle Characters," Sponsored by Texas State University Multidisciplinary Internal Research Grant, Texas State University, $12,000.00. (August 24, 2022 - Present).

Metsis, V. (Principal), Guirguis, M. S. (Co-Principal), "REU Site: Research Experiences for Undergraduates in Smart & Connected Communities," Sponsored by NSF, Federal, $359,812.00. (May 2018 - May 2022).

Clary, K. L. (Principal), Morley, R. H. (Co-Principal), Metsis, V. (Co-Principal), Trujillo, L. T. (Co-Principal), Smith, K. S. (Co-Principal), Goffnett, J. (Co-Principal), Gagnon, O. (Co-Principal), "Exploring Psychophysiological and Perceived Health-Related Behaviors During and After Gender Affirming and Non-Affirming Language Among Transgender People Within a Virtual Reality Setting," Sponsored by Multidisciplinary Internal Research Grant Program (MIRG), Texas State University, $28,110.00. (May 15, 2021 - May 15, 2022).

Smith, K. S. (Principal), Koutitas, G. (Co-Principal), Lawrence, G. B. (Co-Principal), Metsis, V. (Co-Principal), Trahan, M. H. (Co-Principal), "Just-in Time VR Training for EMS AMBUS Personnel," Sponsored by Smart Gigabit Communities. US Ignite, Private / Foundation / Corporate, $10,000.00. (2018 - 2019).

Smith, K. S., Lawrence, G. B., Koutitas, G., Metsis, V., Trahan, M. H., "Just-in Time VR Training for EMS AMBUS Personnel," Sponsored by USIGNITE SMART CITIES, Private / Foundation / Corporate, $19,000.00. (2018 - 2019).

Morley, R. H. (Principal), Smith, K. S. (Co-Principal), Metsis, V. (Co-Principal), Trujillo, L. T. (Co-Principal), Fulton, C. L. (Co-Principal), Jantz, P. B. (Co-Principal), Bowman, S. W. (Co-Principal), Roche, S. P. (Co-Principal), "Exploring the intersection of mindfulness, stress, large-scale brain networks, bias, threat perception failure, and the decision to use deadly force using virtual reality," Texas State University, $16,000.00. (November 9, 2019 - Present).

Metsis, V. (Principal), Guirguis, M. (Co-Principal), "Supplementary funds for REU Site: Research Experiences for Undergraduates in Smart & Connected Communities," Sponsored by National Science Foundation, Federal, $20,000.00.

Metsis, V., Tesic, J., Tamir, D., "Research and Development of Image and Text Analysis Tools for Automatic Social Media Content Classification," Sponsored by http://socialmeteranalysis.it/, Private / Foundation / Corporate, $12,000.00. (September 2018 - May 31, 2019).

Metsis, V. (Principal), Smith, K. S., Tamir, D., Selber, S. K., Trahan, M. H., Lawrence, G. B., "MIRG: Using Virtual Reality Exposure Treatment and Real-Time Physiological Monitoring to Address PTSD Symptoms in Veterans," Sponsored by MIRG, Texas State University, $25,000.00. (November 1, 2016 - October 31, 2018).

Koutitas, G. (Supporting), Metsis, V. (Principal), "RESEARCH EXPERIENCES FOR UNDERGRADUATES IN SMART & CONNECTED COMMUNITIES," Sponsored by NSF, Federal, $359,812.00. (September 2018 - Present).

Metsis, V. (Supporting), "MRI Collaborative: Development of iRehab, an Intelligent Closed-Loop Instrument for Adaptive Rehabilitation," Sponsored by NSF, Federal, $815,890.00. (October 1, 2013 - September 30, 2017).

Metsis, V. (Co-Principal), "CI-P: Planning for SMART-MOVE: A Spatiotemporal Annotated Human Activity Repository for Advanced Motion Recognition and Analysis Research," Federal, $116,000.00. (September 1, 2014 - August 31, 2017).

Metsis, V. (Co-Principal), "WORKSHOP: Doctoral Consortium at the PETRA 2016 Conference," Sponsored by NSF, Federal, $27,580.00. (May 1, 2016 - April 30, 2017).

Metsis, V. (Principal), "REP: Developing Unobtrusive In-Home Sleep Testing," Texas State University, $8,000.00. (January 1, 2016 - December 31, 2016).

Metsis, V. (Co-Principal), "WORKSHOP: Doctoral Consortium at the PETRA 2015 Conference," Sponsored by NSF, $29,040.00. (May 1, 2015 - June 30, 2016).

Metsis, V. (Co-Principal), "EAGER: An Exploratory Pilot Project to Build Human-Centric Physical Activity Monitoring Tools for Enhancing Rehabilitation Therapy Engagement and Assessment," Sponsored by NSF, Federal, $170,026.00. (November 1, 2012 - October 31, 2014).

Metsis, V. (Co-Principal), "Planning Grant: I/UCRC for Assistive Technologies to Enhance Human Performance," Sponsored by NSF, Federal, $16,032.00. (August 1, 2013 - July 31, 2014).

Metsis, V., "Doctoral Consortium and Student-Author Travel for the PETRA'13 Conference," Sponsored by NSF, Federal, $27,018.00. (February 15, 2013 - January 31, 2014).

Metsis, V. (Co-Principal), "Workshop: Doctoral Consortium and Student-Author Travel for the PETRA 2012 Conference," Sponsored by NSF, Federal, $23,380.00. (April 15, 2012 - March 31, 2013).

Teaching Experience

CS 7599, section 001, DISSERTATION. 5.00 credit hours. 1 enrolled.

CS 4395, section 003, INDEPENDENT STUDY. 3.00 credit hours. 1 enrolled.

CS 4337, section 001, INTRO TO COMPUTER VISION. 3.00 credit hours. 53 enrolled.

CS 7313, section 001, MACHINE LEARNING PATTERN RECOG. 3.00 credit hours. 26 enrolled.

CS 7199, section 501, DISSERTATION. 1.00 credit hours. 1 enrolled.

CS 7199, section 252, DISSERTATION. 1.00 credit hours. 3 enrolled.

CS 7999, section 253, DISSERTATION. 9.00 credit hours. 1 enrolled.

CS 7323, section 251, IMAGE PROCESSING & COMP VISION. 3.00 credit hours. 12 enrolled.

CS 4347, section 252, INTRO TO MACHINE LEARNING. 3.00 credit hours. 69 enrolled.

CS 7399, section 001, DISSERTATION. 3.00 credit hours. 1 enrolled.

CS 7699, section 002, DISSERTATION. 6.00 credit hours. 1 enrolled.

CS 7999, section 002, DISSERTATION. 9.00 credit hours. 2 enrolled.

CS 4337, section 001, INTRO TO COMPUTER VISION. 3.00 credit hours. 46 enrolled.

CS 7313, section 001, MACHINE LEARNING PATTERN RECOG. 3.00 credit hours. 8 enrolled.

CS 5326, section 251, ADV HUMAN FACTORS. 3.00 credit hours. 18 enrolled.

CS 7399, section 251, DISSERTATION. 3.00 credit hours. 1 enrolled.

CS 7699, section 251, DISSERTATION. 6.00 credit hours. 2 enrolled.

CS 7999, section 252, DISSERTATION. 9.00 credit hours. 1 enrolled.

CS 4326, section 251, HUMAN FACTORS. 3.00 credit hours. 65 enrolled.

CS 5395, section 255, IND STUDY ADV. 3.00 credit hours. 2 enrolled.

CS 7313, section 251, MACHINE LEARNING PATTERN RECOG. 3.00 credit hours. 25 enrolled.

CS 7387, section 256, RESEARCH IN COMPUTER SCIENCE. 3.00 credit hours. 1 enrolled.

CS 5329, section 001, ALG DESIGN ANALYSI. 3.00 credit hours. 21 enrolled.

CS 5329, section 002, ALG DESIGN ANALYSI. 3.00 credit hours. 4 enrolled.

CS 7399, section 002, DISSERTATION. 3.00 credit hours. 1 enrolled.

CS 7699, section 002, DISSERTATION. 6.00 credit hours. 1 enrolled.

CS 7999, section 002, DISSERTATION. 9.00 credit hours. 2 enrolled.

CS 4379C, section 001, INTRO TO COMPUTER VISION. 3.00 credit hours. 44 enrolled.

CS 7699, section 251, DISSERTATION. 6.00 credit hours. 2 enrolled.

CS 7999, section 252, DISSERTATION. 9.00 credit hours. 1 enrolled.

CS 7323, section 252, IMAGE PROCESSING & COMP VISION. 3.00 credit hours. 7 enrolled.

CS 4395, section 255, INDEPENDENT STUDY. 3.00 credit hours. 1 enrolled.

CS 4347, section 251, INTRO TO MACHINE LEARNING. 3.00 credit hours. 70 enrolled.

CS 7387, section 257, RESEARCH IN COMPUTER SCIENCE. 3.00 credit hours. 2 enrolled.

CS 5199B, section 253, THESIS. 1.00 credit hours. 1 enrolled.

CS 5329, section 001, ALG DESIGN ANALYSI. 3.00 credit hours. 13 enrolled.

CS 5329, section 002, ALG DESIGN ANALYSI. 3.00 credit hours. 13 enrolled.

CS 7699, section 003, DISSERTATION. 6.00 credit hours. 1 enrolled.

CS 4379C, section 001, INTRO TO COMPUTER VISION. 3.00 credit hours. 30 enrolled.

CS 7387, section 005, RESEARCH IN COMPUTER SCIENCE. 3.00 credit hours. 2 enrolled.

CS 5399B, section 003, THESIS. 3.00 credit hours. 1 enrolled.

CS 7387, section 501, RESEARCH IN COMPUTER SCIENCE. 3.00 credit hours. 2 enrolled.

CS 7699, section 252, DISSERTATION. 6.00 credit hours. 1 enrolled.

CS 4395, section 252, INDEPENDENT STUDY. 3.00 credit hours. 2 enrolled.

CS 4347, section 251, INTRO TO MACHINE LEARNING. 3.00 credit hours. 59 enrolled.

CS 3354, section 256, OBJ-ORTD DSG & PRG. 3.00 credit hours. 50 enrolled.

CS 5399A, section 252, THESIS. 3.00 credit hours. 1 enrolled.

CS 5329, section 001, ALG DESIGN ANALYSI. 3.00 credit hours. 16 enrolled.

CS 5329, section 002, ALG DESIGN ANALYSI. 3.00 credit hours. 7 enrolled.

CS 4395, section 004, INDEPENDENT STUDY. 3.00 credit hours. 2 enrolled.

CS 7387, section 002, RESEARCH IN COMPUTER SCIENCE. 3.00 credit hours. 1 enrolled.

CS 4379C, section 251, INTRO TO COMPUTER VISION. 3.00 credit hours. 42 enrolled.

CS 3354, section 252, OBJ-ORTD DSG & PRG. 3.00 credit hours. 32 enrolled.

CS 5199B, section 253, THESIS. 1.00 credit hours. 1 enrolled.

CS 5329, section 010, ALG DESIGN ANALYSI. 3.00 credit hours. 14 enrolled.

CS 5329, section 011, ALG DESIGN ANALYSI. 3.00 credit hours. 14 enrolled.

CS 3354, section 005, OBJ-ORTD DSG & PRG. 3.00 credit hours. 60 enrolled.

CS 5199B, section 001, THESIS. 1.00 credit hours. 1 enrolled.

CS 5399B, section 002, THESIS. 3.00 credit hours. 1 enrolled.

CS 5399B, section 501, THESIS. 3.00 credit hours. 1 enrolled.

CS 7323, section 251, IMAGE PROCESSING & COMP VISION. 3.00 credit hours. 8 enrolled.

CS 4395, section 253, INDEPENDENT STUDY. 3.00 credit hours. 6 enrolled.

CS 3354, section 261, OBJ-ORTD DSG & PRG. 3.00 credit hours. 60 enrolled.

CS 5399A, section 253, THESIS. 3.00 credit hours. 1 enrolled.

CS 5399B, section 252, THESIS. 3.00 credit hours. 1 enrolled.

CS 5329, section 001, ALG DESIGN ANALYSI. 3.00 credit hours. 7 enrolled.

CS 5329, section 002, ALG DESIGN ANALYSI. 3.00 credit hours. 20 enrolled.

CS 3354, section 002, OBJ-ORTD DSG & PRG. 3.00 credit hours. 60 enrolled.

CS 5399A, section 003, THESIS. 3.00 credit hours. 1 enrolled.

CS 5399B, section 001, THESIS. 3.00 credit hours. 1 enrolled.

CS 5326, section 251, ADV HUMAN FACTORS. 3.00 credit hours. 4 enrolled.

CS 4326, section 251, HUMAN FACTORS. 3.00 credit hours. 40 enrolled.

CS 4395, section 251, INDEPENDENT STUDY. 3.00 credit hours. 1 enrolled.

CS 5399A, section 253, THESIS. 3.00 credit hours. 1 enrolled.

CS 5329, section 001, ALG DESIGN ANALYSI. 3.00 credit hours. 6 enrolled.

CS 5329, section 002, ALG DESIGN ANALYSI. 3.00 credit hours. 13 enrolled.

CS 3354, section 001, OBJ-ORTD DSG & PRG. 3.00 credit hours. 52 enrolled.

CS 5399B, section 002, THESIS. 3.00 credit hours. 1 enrolled.

CS 5199B, section 504, THESIS. 1.00 credit hours. 1 enrolled.

CS 5326, section 251, ADV HUMAN FACTORS. 3.00 credit hours. 7 enrolled.

CS 4326, section 251, HUMAN FACTORS. 3.00 credit hours. 40 enrolled.

CS 5399A, section 251, THESIS. 3.00 credit hours. 1 enrolled.

CS 5399B, section 258, THESIS. 3.00 credit hours. 1 enrolled.

CS 3358, section 004, DATA STRUCTURES. 3.00 credit hours. 46 enrolled.

CS 4354, section 001, OBJ-ORTD DSG & IMP. 3.00 credit hours. 31 enrolled.

CS 5399A, section 008, THESIS. 3.00 credit hours. 1 enrolled.

CS 2308, section 256, FOUNDATNS OF CS II. 3.00 credit hours. 38 enrolled.

CS 4326, section 251, HUMAN FACTORS. 3.00 credit hours. 38 enrolled.

CS 4354, section 001, OBJ-ORTD DSG & IMP. 3.00 credit hours. 47 enrolled.

Directed Student Learning

Master's Thesis, "Exploring Feasibility of Social Distancing Measurement from Autonomous Vehicle." (May 2021 - March 2022).
Advised: Sree Nirmillo Biswash Tushar

Honor's Thesis, "Automatic Assessment of Structural Damage of Masonry Structures by Visual Analysis of Surface Cracks." (August 2021 - December 2021).
Advised: Nhan Nguyen

Honor's Thesis, "The Hidden Shape of Data: Topological Data Analysis for Anxiety Detection in Text." (January 2021 - May 2021).
Advised: Morgan Byers

Independent Study, "Evaluation of Attention Mechanisms for Recurrent Neural Networks." (January 2021 - May 2021).
Advised: Alexander Katrompas

Independent Study, "Design and Development of a Virtual Reality Environment for Detecting Implicit Racial Bias." (January 2021 - May 2021).
Advised: Connor Scott

Independent Study, "Deep Feature Mining via Encoder-Decoder Networks for EEG classification Tasks." (January 2021 - May 2021).
Advised: Xiaomin Li

Master's Thesis, "Real-time Movement Classification and Analysis from RGB–D Video Data." (January 2020 - April 2021).
Advised: Mahya Saeednejad

Dissertation, "Inner Knowledge Distillation for True Neural Network Compression." (March 2021).
Advised: Cody Blakeney

Independent Study, "Comparing EEG-Based Motor Imagery Classication from Supervised and Unsupervised Transfer Learning." (October 2020 - December 2020).
Advised: Xiaomin Li

Independent Study, "Visualization Techniques for Human-In-The-Loop Review of Mislabeled Data." (August 2020 - December 2020).
Advised: Gentry Atkinson

Master's Thesis, "Social Network Analysis at Scale: Graph-Based Analysis of Twitter Trends and Communities." (January 20, 2020 - November 30, 2020).
Advised: Lia Nogueira de Moura

Independent Study, "Enhancing LSTM Models Through Attention Mechanisms and Stateful Training." (May 2020 - August 2020).
Advised: Alex Katrompas

Independent Study, "Identifying Mislabeled Instances in Time Series Data." (May 2020 - August 2020).
Advised: Gentry Atkinson

Applied Research Project, "CoSE Undergraduate Research Program - Experimentation with Python and Machine Learning for Data Classification." (January 2020 - May 2020).
Advised: Jamin Rogers

Independent Study, "Physics-based, Hand-tracking Interactions in Virtual Reality." (January 2020 - May 2020).
Advised: Clayton Stamper

Independent Study, "Detecting Exercise and Calories Burned Using Human Pose Estimation." (January 2020 - May 2020).
Advised: Shives Jadon

Master's Thesis, "Performance of Delta Huffman Compression Variants." (August 23, 2019 - April 30, 2020).
Advised: Aaron Bryant

Master's Thesis, "Development Of An Iot Middleware For Rapid Development Of Iot Applications On Mobile Edge Devices." (August 2019 - April 30, 2020).
Advised: Jesuloluwa Eyitayo

Independent Study, "An Assessment of Autonomic Nervous System Responses During Virtual Reality Exposure Therapy." (August 2019 - December 2019).
Advised: Laura Huerta

Independent Study, "Activity classification based on wristband accelerometer data." (August 2019 - December 2019).
Advised: Lee Hinkle

Independent Study, "A Quantitative Analysis of the Effect of Stress and Immersive 360-degree Video on Eyewitness Memory Recall." (August 2019 - December 2019).
Advised: Zainab Melhem

Master's Thesis, "Movement Classification and Analysis from RGB–D Video Data." (January 2018 - April 2019).
Advised: Patrick Ring

Master's Thesis, "Human Emotion Recognition from Physiological Biosignals." (August 2017 - December 2018).
Advised: Priyank Trivedi

Master's Thesis, "Identification Of Gene Sets That Predict Acute Myeloid Leukemia Prognosis Using Integrative Gene Network Analysis." (August 2017 - August 2018).
Advised: Hanie Samimi

Independent Study, "Identifying Moments of Stress Using Audio Classification." (January 2018 - May 2018).
Advised: Benjamin Garrard

Independent Study, "Twitter Sentiment Analysis: Using Machine Learning Algorithms to Preform Sentiment Analysis on Tweets." (January 2018 - May 2018).
Advised: Benjamin Munoz

Independent Study, "Supervised Machine Learning for Automated Gait Classification using Electromyography." (January 2018 - May 2018).
Advised: Jessica Cruz

Independent Study, "Using the Microsoft Kinect for 3D Model Generation and Application of Models to Virtual or Augmented Reality Environments." (January 2018 - May 2018).
Advised: Kevin Kim

Independent Study, "Study of Multimodal Sensor Data Visualization and Marking." (January 2018 - May 2018).
Advised: Scott Folid

Independent Study, "Collecting and Analyzing Motion Sensor Data for the Classification of Daily Life Activities." (January 2018 - May 2018).
Advised: Taylor Mauldin

Master's Thesis, "Combining Deep Learning with Traditional Machine Learning to Improve Classification Accuracy on Small Datasets." (January 2017 - December 2017).
Advised: Ghadeer Alabandi

Master's Thesis, "IMPLEMENTATION AND EVALUATION OF AN ANDROID ACCESSOR-BASED IOT MIDDLEWARE." (August 2017).
Advised: Vimal Krishnamoorthy

Master's Thesis, "An Efficient Connected Components Algorithm for Massively-Parallel Devices." (May 2017).
Advised: Jayadharini Jaiganesh

Independent Study, "Study of Imaging Methods for Automatic Detection of Stress During Virtual Reality Immersion." (January 2017 - May 2017).
Advised: Michael Robertson

Master's Thesis, "DETERMINATION OF EMOTIONAL STATE THROUGH PHYSIOLOGICAL MEASUREMENT." (January 20, 2016 - December 12, 2016).
Advised: Lee Hinkle

Project, "Extraction of visual features from Infrared and RGB-D images." (January 20, 2016 - September 30, 2016).
Advised: Thomas Thomson

Master's Thesis, "ANALYSIS OF HUMAN POLYSOMNOGRAPHY(PSG) FOR AUTOMATIC SLEEP EVENT DETECTION USING HIDDEN MARKOV MODEL." (September 1, 2015 - August 15, 2016).
Advised: Alakh Biniwale

Project, "Classification of Emotional Arousal During Music Listening, Video Watching, and Gaming." (June 1, 2016 - July 31, 2016).
Advised: Adam Anderson, Thomas Hsiao

Applied Research Project, "A Novel Algorithm to Segmenting Biosignals using Hierarchical Clustering." (June 15, 2016 - July 20, 2016).
Advised: David Yuan, Kevin Rao, Laura Li

Master's Thesis, "RECOMMENDER RESPONSE TO USER PROFILE DIVERSITY AND POPULARITY BIAS." (July 5, 2016).
Advised: Sushma Channamsetty

Master's Thesis, "EXPLORING POTENTIALLY DISCRIMINATORY BIAS IN BOOK RECOMMENDATION." (June 27, 2016).
Advised: Mohammed Imran Rukmoddin Kazi

Master's Thesis, "TOWARDS A FRAMEWORK FOR AUTOMATING THE WORKFLOW FOR BUILDING MACHINE LEARNING BASED PERFORMANCE TUNING MODELS." (April 1, 2016).
Advised: Biplab Saha

Project, "Automated detection of sleep disorder-related events from polysomnographic data." (June 1, 2015 - July 31, 2015).
Advised: Hugo Espiritu

Project, "Web-based Computerized Assessment of Speech Pathology Disorders." (June 1, 2015 - July 31, 2015).
Advised: Steven Glagget

Applied Research Project, "Using Kinect motion tracking to assist in-home motor rehabilitation and physical therapy." (June 15, 2015 - July 20, 2015).
Advised: Samhith Punukula, Emily Zhao, Priscilla Giner

Project, "Calculation of human body volume and weight based on imaging data." (October 1, 2014 - May 10, 2015).
Advised: Cesar Monzon

Master's Thesis, "Point-of-Gaze applications for Assistive Interaction." (December 2012).
Advised: Jonathan Rich

Non-Credit Instruction Taught

Continuing Education, Google, 21 participants. (June 4, 2018 - June 29, 2018).

Teaching Innovation and Curriculum Development

New Course. CS 4379C - Introduction to Computer Vision. January 2019 - May 2019.

Revise Existing Course. CS3354 - Object Oriented Design and Programming. August 2018 - December 2018.

New Course. Image Processing and Computer Vision. January 2018 - May 2018.

First Time Course Preparation. CS5329 - Algorithm Design and Analysis. August 20, 2016 - December 10, 2016.

First Time Course Preparation. CS 3358 - Data Structures. August 20, 2015 - December 10, 2015.

First Time Course Preparation. CS 4326 – Human Factors of Computer Systems. January 20, 2015 - May 10, 2015.

First Time Course Preparation. CS2308 - Foundations of Computer Science II. January 20, 2015 - May 10, 2015.

First Time Course Preparation. CS 4354: Object-Oriented Design and Implementation. August 20, 2014 - December 10, 2014.

Faculty Development Activities Attended

Workshop, "Pursuing Funding from Foundations and Private Sources," Texas State University, San Marcos. (March 21, 2017).

Workshop, "NSF CISE CAREER Workshop," National Science Foundation. (April 4, 2016 - April 5, 2016).

Workshop, "T&L Excellence 14-15: Teaching & Learning," Texas State University, San Marcos, TX, United States. (2014 - 2015).

Seminar, "Overview of the Research Enhancement Program." (September 2, 2015).

Seminar, "For The Record," Texas State University, San Marcos, TX, United States. (August 10, 2015).

Seminar, "Why your students do the things they do in your classes (and what can be done about it)." (April 3, 2015).

Seminar, "Using Online Discussions Effectively." (February 9, 2015).

Workshop, "Teaching at a University: A Hands-on Workshop for Faculty New to the Teaching Profession." (January 13, 2015).

Seminar, "Elements of Successful Grant Proposals: Design & Analysis Considerations," Texas State University, San Marcos. (November 21, 2014).

Seminar, "Introduction to Rubrics," Texas State University, San Marcos. (November 14, 2014).

Seminar, "NSF Grants Webcast-Proposal Preparation & Merit Review," National Science Foundation. (November 7, 2014).

Seminar, "Classroom Assessment: Principles and Best Practices (Online Webinar)," Texas State University, San Marcos. (November 5, 2014).

Workshop, "Creating Significant Learning Experiences for Your Students," Texas State University, San Marcos. (October 31, 2014).

Seminar, "Writing Grants: What Every Professor at Texas State Should Know First," Texas State University, San Marcos. (October 28, 2014).

Seminar, "Planning & Delivering Effective Research Presentations," Texas State University, San Marcos. (October 24, 2014).

Seminar, "Research Cash Advances and Payment of Human Subjects," Texas State University, San Marcos. (October 22, 2014).

Seminar, "OMG, I have to do an IRB Application! What IS an IRB application, anyway?," Texas State University, San Marcos. (October 2, 2014).

Seminar, "Pre-Award Services," Texas State University, San Marcos, TX, United States. (September 16, 2014).

Tutorial, "Beginning TRACS for New Faculty Orientation," Texas State University, San Marcos. (August 20, 2014).

University Service

University Mentor, TXST Google Developer Student Club. (2022 - Present).

Member, Graduate Fulbright Campus Committee. (June 2021 - Present).

Chair, CS Space Committee. (2021 - Present).

Member, Faculty (TT) Search Committee. (2021 - Present).

Member, PhD Program Committee. (2021 - Present).

Member, CS Personnel Committee. (September 2020 - Present).

Member, Undergraduate Committee. (September 2020 - Present).

University Mentor, Faculty Advisor at Virtual Reality Club Student Organization. (September 2018 - Present).

Member, Policy and Procedure Committee. (2016 - Present).

Grader for MS Programming Qualification Exam, MS Qualification Exam. (2015 - Present).

Member, Recruitment and Publicity Committee. (2015 - Present).

Member, COSE Dean Summative Evaluation Committee. (2022).

Member, CS Space Committee. (August 2006 - 2020).

Member, Doctoral Student Recruitment Committee. (2017).

Member, REP Review Committee for College of Science and Engineering. (2016).

Professional Service

Reviewer / Referee, ACM Transactions on Computing for Healthcare. (2022).

Reviewer / Referee, MDPI Applied Sciences Journal. (2022).

Reviewer / Referee, National Science Foundation, Alexandria, VA. (May 5, 2022).

Reviewer / Referee, 36th AAAI Conference on Artificial Intelligence - Undergraduate Consortium, Virtual Conference. (February 22, 2022 - March 1, 2022).

Reviewer / Referee, The 14th ACM International Conference on PErvasive Technologies Related to Assistive Environments (PETRA 2021), Corfu. (2021).

Reviewer / Referee, IEEE International Conference on Automatic Face and Gesture Recognition (FG 2021), Jodhpur. (December 15, 2021 - December 18, 2021).

Multimodal Interfaces and HCI - Session Chair, The 14th ACM International Conference on PErvasive Technologies Related to Assistive Environments (PETRA 2021), Corfu. (July 1, 2021).

Chair, PETRA 2021 Workshop: Affect-Aware Virtual Reality for Therapeutic Intervention and Training (AffectVR), Corfu. (June 29, 2021 - July 1, 2021).

Reviewer / Referee, Journal: IEEE Transactions on Affective Computing. (June 2021).

Reviewer / Referee, 17th International Conference on Artificial Intelligence Applications and Innovations (AIAI 2021), Crete. (June 25, 2021 - June 27, 2021).

Reviewer / Referee, National Science Foundation (NSF). (June 10, 2021).

Reviewer / Referee, KDD 2020 Conference. (2020).

Reviewer / Referee, MDPI Applied Sciences Journal. (2020).

Reviewer / Referee, IEEE International Conference on Automatic Face and Gesture Recognition. (2016 - 2020).

Reviewer / Referee, IEEE Sensors Journal. (2016 - 2020).

Reviewer / Referee, MDPI Sensors Journal. (2015 - 2020).

Reviewer / Referee, International Conference on PErvasive Technologies Related to Assistive Environments. (2008 - 2020).

Reviewer / Referee, National Science Foundation - Grant Proposal Review Panel. (November 9, 2020 - November 10, 2020).

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Coordinator / Organizer, NSF Doctoral Consortium at PETRA 2017 Conference, Corfu. (June 2017).

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