

CONTACT INFORMATION	Associate Professor Department of Computer Science Texas State University San Marcos, TX 78666, USA	<i>Mobile:</i> +1-682-552-4478 <i>Work:</i> +1-512-245-7509 <i>E-mail:</i> vmetsis@txstate.edu <i>Web:</i> cs.txstate.edu/~v_m137
RESEARCH INTERESTS	Areas: Machine Learning and Computer Vision with a focus on AI-powered applications of Smart Health, Pervasive Computing, Affective Computing, and Human-AR/VR Interaction. Data Domains: Time-series Sensor Data, Human Physiological and Behavioral Data, Human-centered Visual, Audio, Text data.	
TEACHING INTERESTS	Machine Learning, Deep Learning, Computer Vision, Human-Computer Interaction, Algorithms & Data Structures, Object Oriented Programming, Data Mining.	
EDUCATION	The University of Texas at Arlington, Arlington, TX Ph.D. , Dept. of Computer Science and Engineering Aug. 2007 – Dec. 2011 <ul style="list-style-type: none"> • Dissertation Topic: <i>A Computational Framework for Human-Centered Multimodal Data Analysis</i> • Advisers: Prof. Fillia Makedon & Prof. Heng Huang • Area of Study: Computer Science - B.S. to Ph.D. program Athens University of Economics and Business, Athens, Greece B.S. (with honors), Department of Informatics Oct. 2001 – Sept. 2005 <ul style="list-style-type: none"> • Grade: 8.64/10. Corresponding of <i>Summa cum Laude</i>. Highest grade in class in Fall 2005 semester graduation ceremony. • Major: in Computer Science • Minor: Information Systems and Management 	
ACADEMIC APPOINTMENTS	Associate Professor Sep. 2020 – present Dept. of Computer Science, Texas State University <ul style="list-style-type: none"> • Supervisor: Department Chair, Prof. Hongchi Shi Assistant Professor Aug. 2014 – Aug. 2020 Dept. of Computer Science, Texas State University <ul style="list-style-type: none"> • Supervisor: Department Chair, Prof. Hongchi Shi Faculty Research Associate Jan. 2012 – Aug. 2014 Dept. of Computer Science and Engineering, University of Texas at Arlington <ul style="list-style-type: none"> • Supervisor: Department Chair, Prof. Fillia Makedon Graduate Research Assistant Sep. 2007 – Dec. 2011 Dept. of Computer Science and Engineering, University of Texas at Arlington <ul style="list-style-type: none"> • Advisers: Prof. Fillia Makedon and Prof. Heng Huang Research Associate Mar. 2006 – Aug. 2007 Institute of Informatics and Telecommunications, National Center for Scientific Research “Demokritos”, Greece <ul style="list-style-type: none"> • Supervisor: Dr. Vangelis Karkaletsis • Project: Research and development for the purposes of the European Commission-funded project “Quality Labeling of Medical Web Content using Multilingual Information Extraction (MedIEQ)” 	

OTHER
PROFESSIONAL
APPOINTMENTS

The University of Texas at Arlington, Arlington, TX

Webmaster/Systems Administrator

Jun. 2008 – Aug. 2014

- Development, maintenance and Web support of the web infrastructure at the Department of Computer Science and Engineering, including the main CSE website and supporting sub-systems (<http://www.cse.uta.edu/>).

Athens University of Economics and Business, Athens, Greece

Webmaster

Feb. 2006 – Jun. 2007

- Development and Maintenance of the Web based remote learning platform: E-Class (<http://eclass.aueb.gr/>)

Systems Administrator

Feb. 2005 – Sep. 2005

- *Undergrad Internship*: System Administrator and Microsoft Advanced Software Administrator at the Computer Science Labs of AUEB.

TEACHING
EXPERIENCE

Texas State University, San Marcos, TX

Assistant/Associate Professor

- CS 7389H - Human-Centric Deep Learning
- CS 7323 - Image Processing and Computer Vision
- CS 7313 - Advanced Machine Learning and Pattern Recognition
- CS 5329 - Algorithm Design and Analysis
- CS 4326/5326 - Human Factors of Computer Systems
- CS 4347 - Intro to Machine Learning
- CS 4337 - Intro to Computer Vision
- CS 4354 - Object Oriented Design and Implementation
- CS 3354 - Object Oriented Design and Programming
- CS 3358 - Data Structures
- CS 2308 - Foundations of Computer Science II

The University of Texas at Arlington, Arlington, TX

Adjunct Lecturer

- CSE 5311 - Design & Analysis of Algorithms
- CSE 2320 - Algorithms & Data Structures
- CSE 4391/6397 - CSE Study Abroad Program
- CSE 1311 - Introd. Programming for Engineers & Scientists

Teaching Assistant

- CSE 4391/6397 - CSE Study Abroad Program
- CSE5306 - Operating Systems II

STUDENT
ADVISING

Ph.D. dissertation: Lee B. Hinkle, Gentry Atkinson, Xiaomin Li, Alexander Katrompas.

Master thesis: Mahya Saeednejad, Patrick Ring, Ghadeer Alabandi, Alakh Biniwale.

Independent study & honors thesis: Nhan Nguyen, Morgan Byers, Connor Scott, Clayton Stamper, Shives Jadon, Laura Huerta, Benjamin Garrard, Benjamin Munoz, Jessica Cruz, Kevin Kim, Scott Folid, Taylor Mauldin, Michael Robertson, Thomas Thomson.

RESEARCH
FUNDING

Principal Investigator:

- Graduate Assistance in Areas of National Need (GAANN), Sponsored by U.S. Department of Education, Federal, \$728K, 2021-2024.
- High-Performance Computing GPU Infrastructure for Machine Learning Research," Sponsored by Materials Application Research Center (MARC), Texas State University, \$50K, 2022-2023.
- NSF-1757893: "REU Site: Research Experiences for Undergraduates in Smart & Connected Communities", \$380K, 2018-2022.
- Maxfone: "Research and Development of Image and Text Analysis Tools for Automatic Social Media Content Classification", \$12K, 2018-2019.
- Texas State University - MIRG Program: "Using Virtual Reality Exposure Treatment and Real-Time Physiological Monitoring to Address PTSD Symptoms in Veterans", \$25K, 2016-2017.
- Texas State University - Research Enhancement Program: "Developing Unobtrusive In-Home Sleep Testing", \$8K, 2016.

Co-Principal Investigator:

- "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, \$28K, 2021-2024.
- "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, \$16K, 2021-2024.
- US Ignite GigaTechs App Competition: "Just-in-time VR Training for Ambus EMS Personnel", \$29K, 2017-2019.
- NSF-1439645: "I/UCRC Phase I: iPerform - I/UCRC for Assistive Technologies to Enhance Human Performance", \$622K, 2014-2020.
- NSF-1405985: "CI-P: Planning for SMART-MOVE: A Spatiotemporal Annotated Human Activity Repository for Advanced Motion Recognition and Analysis Research", \$116K, 2014-2017.
- NSF-1636543: 'WORKSHOP: Doctoral Consortium at the PETRA 2016 Conference", \$28K, 2016-2017.
- NSF-1536109: 'WORKSHOP: Doctoral Consortium at the PETRA 2015 Conference", \$29K, 2013-2014.
- NSF-1338930: "Planning Grant: I/UCRC for Assistive Technologies to Enhance Human Performance", \$16K, 2013.
- NSF-1258500: "EAGER: An Exploratory Pilot Project to Build Human-Centric Physical Activity Monitoring Tools for Enhancing Rehabilitation Therapy Engagement and Assessment", \$170K, 2012-2013.
- NSF-1329119: "Doctoral Consortium and Student-Author Travel for the PETRA 2013 Conference", \$27K, 2013-2014.
- NSF-1238660: "Doctoral Consortium and Student-Author Travel for the PETRA 2012 Conference", \$23K, 2012-2013.

Senior Investigator:

- NSF-1338118: "MRI Collaborative: Development of iRehab, an Intelligent Closed-Loop Instrument for Adaptive Rehabilitation", \$880K, 2013-2016.
- "The Accelerating Credentials of Purpose and Value for the Texas Innovation Corridor (TIC) Consortium Grant," Sponsored by THECB, State, \$1.45M, 2022-2025.

As a Graduate Research Assistant, participated in writing the proposal and conducted research for the following grants:

- NSF-CNS 0923494 MRI grant: \$755K, 2009-2013
- NSF-CNS 1035913 CPS grant: \$682K, 2010-2013
- NSF-IIS 1041637 HCC EAGER grant: \$152K, 2010-2013
- NSF-IIS 1117965: III Grant: \$316K, 2011-2014.

Worked as a Research Associate in:

- European Commission-funded project MedIEQ, €1,290,098, 2006-2009

PEER-REVIEWED
PUBLICATIONS

Journal Publications:

- [1] X. Li, M. Sakevych, G. Atkinson, and **V. Metsis**. Biodiffusion: A versatile diffusion model for biomedical signal synthesis. *Bioengineering*, MDPI, vol. 11, pp. 299, 2024.
- [2] M. Byers, M. Trahan, E. Nason, C. Eigege, N. Moore, M. Washburn, and **V. Metsis**, Detecting Intensity of Anxiety in Language of Student Veterans with Social Anxiety Using Text Analysis. *Journal of Technology in Human Services*, Taylor & Francis, pp. 1-21, 2023.
- [3] A. H. Ngu, **V. Metsis**, S. Coyne, P. Srinivas, T. Salad, U. Mahmud, and K. H. Chee. Personalized Watch-Based Fall Detection Using a Collaborative Edge-Cloud Framework. *International journal of neural systems*, pp. 2250048-2250048, 2022.
- [4] M. H. Trahan, R. H. Morley, E. E. Nason, N. Rodrigues, L. Huerta, and **V. Metsis**. Virtual reality exposure simulation for student veteran social anxiety and PTSD: A case study, *Clinical Social Work Journal*, Springer, vol. 49, pp. 220-230, 2021.
- [5] G. Koutitas, V. Kumar Siddaraju, and **V. Metsis**. In Situ Wireless Channel Visualization Using Augmented Reality and Ray Tracing, *Sensors, Multidisciplinary Digital Publishing Institute*, vol. 20, pp. 690, 2020.
- [6] T. Mauldin, A. H. Ngu, **V. Metsis**, and M. E. Canby. Ensemble Deep Learning on Wearables Using Small Datasets, *ACM Transactions on Computing for Healthcare, ACM New York, NY, USA*, vol. 2, pp. 1-30, 2020.
- [7] T. Mauldin, A. H. Ngu, **V. Metsis**, M. E. Canby, and J. Tesic, Experimentation and analysis of ensemble deep learning in iot applications. *Open Journal of Internet Of Things (OJIOT), RonPub*, vol. 5, pp. 133-149, 2019.
- [8] **V. Metsis**, G. Lawrence, M. Trahan, K. S. Smith, D. Tamir, and K. Selber. 360 Video: A prototyping process for developing virtual reality interventions. *Journal of Technology in Human Services (2019): 1-19*.
- [9] M. H. Trahan, A. R. Ausbrooks, K. S. Smith, **V. Metsis**, A. Berek, L. H. Trahan, and K. Selber. Experiences of student veterans with social anxiety and avoidance: A qualitative study. *Social Work in Mental Health 17*, no. 2 (2019): 197-221.
- [10] E. E. Nason, M. Trahan, S. Smith, **V. Metsis**, and K. Selber. Virtual treatment for veteran social anxiety disorder: A comparison of 360 video and 3D virtual reality. *Journal of Technology in Human Services (2019): 1-21*.
- [11] A. Malhotra, I. D. Schizas, and **V. Metsis**. Correlation analysis-based classification of human activity time series. *IEEE Sensors Journal 18*, no. 19 (2018): 8085-8095.

- [12] T. Mauldin, M. Canby, **V. Metsis**, A. Ngu, and C. Rivera. Smartfall: a smartwatch-based fall detection system using deep learning. *MDPI Sensors* 18, no. 10 (2018): 3363.
- [13] K.K. Roudposhti, J. Dias, P. Peixoto, **V. Metsis**, and U. Nunes. A Multilevel Body Motion-based Human Activity Analysis Methodology. *IEEE Transactions on Cognitive and Developmental Systems* 9.1 (2016): 16-29.
- [14] A. H. Ngu, Anne HH, M. Gutierrez, **V. Metsis**, S. Nepal, and M. Z. Sheng. IoT Middleware: A Survey on Issues and Enabling technologies. *IEEE Internet of Things Journal* 4.1 (2016): 1-20.
- [15] **V. Metsis**, H. Huang and F. Makedon. DNA Copy Number Selection Using Robust Structured Sparsity-Inducing Norms. *IEEE Transactions on Computational Biology and Bioinformatics (IEEE-TCBB)* 11.1 (2014): 138-181.
- [16] C. McMurrrough, **V. Metsis**, D. Kosmopoulos, I. Maglogiannis and F. Makedon. A Dataset for Point of Gaze Detection using Head Poses and Eye Images. *Journal on Multimodal User Interfaces* 7.3 (2013): 207-215.
- [17] **V. Metsis**, D. Kosmopoulos, V. Athitsos, and F. Makedon. Non-Invasive Analysis of Sleep Patterns via Multimodal Sensor Input. *Personal and Ubiquitous Computing* (2012): 1-8.
- [18] **V. Metsis**, H. Huang, O. C. Andronesi, F. Makedon, and A. Tzika. Heterogeneous data fusion for brain tumor classification", *Oncology Reports* 28.4 (2012): 1413-1416.
- [19] K. Dela Rosa, **V. Metsis**, and V. Athitsos. Boosted ranking models: a unifying framework for ranking predictions. *Knowledge and Information Systems* 30.3 (2012): 543-568.
- [20] C. Doukas, **V. Metsis**, E. Becker, Z. Le, F. Makedon, and I. Maglogiannis. Digital cities of the future: Extending @home assistive technologies for the elderly and the disabled. *Telematics and Informatics* 28, no. 3 (2011): 176-190.

Conference Publications

- [21] H. Irani, and **V. Metsis**. Enhancing Time-Series Prediction with Temporal Context Modeling: A Bayesian and Deep Learning Synergy. *The International FLAIRS Conference Proceedings*, vol. 37, 2024.
- [22] A. Katrompas, and **V. Metsis**. Temporal Attention Signatures for Interpretable Time-Series Prediction. *International Conference on Artificial Neural Networks*, pp. 268-280, 2023.
- [23] G. Atkinson, X. Li, and **V. Metsis**. Conditional Diffusion with Label Smoothing for Data Synthesis from Examples with Noisy Labels. *2023 31st European Signal Processing Conference (EUSIPCO)*, pp. 1300-1304, 2023.
- [24] X. Li, R. Nabati, K. Singh, E. Corona, **V. Metsis**, and A. Parchami. EMOD: Efficient Moving Object Detection via Image Eccentricity Analysis and Sparse Neural Networks. *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision*, pp. 51-59, 2023.

- [25] L. B. Hinkle, G. Atkinson, and **V. Metsis**. Fusion of Learned Representations for Multimodal Sensor Data Classification. *Artificial Intelligence Applications and Innovations: 19th IFIP WG 12.5 International Conference, AIAI 2023*, Leon, Spain, June 14–17, 2023, Proceedings, Part I, pp. 404-415, 2023.
- [26] L. B. Hinkle, and **V. Metsis**. An LLVM-Inspired Framework for Unified Processing of Multimodal Time-Series Data. *Proceedings of the 16th International Conference on Pervasive Technologies Related to Assistive Environments*, pp. 91-94, 2023.
- [27] L. B. Hinkle, T. Pedro, T. Lynn, G. Atkinson, and **V. Metsis**. Assisted Labeling Visualizer (ALVI): A Semi-Automatic Labeling System For Time-Series Data. *2023 IEEE International Conference on Acoustics, Speech, and Signal Processing Workshops (ICASSPW)*, pp. 1-5, 2023.
- [28] X. Li, **V. Metsis**, H. Wang, and A. H. H. Ngu. TTS-GAN: A Transformer-Based Time-Series Generative Adversarial Network. *20th International Conference on Artificial Intelligence in Medicine (AIME 2022)*, Springer International Publishing, 2022.
- [29] M. Byers, L. B. Hinkle, and **V. Metsis**. 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)*, Springer International Publishing, pp. 402-413, 2022.
- [30] X. Li, and **V. Metsis**. 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)*, pp. 173-182, 2022.
- [31] C. Blakeney, G. Atkinson, N. Huish, Y. Yan, **V. Metsis**, and Z. Zong. Measuring Bias and Fairness in Multiclass Classification. *2022 IEEE International Conference on Networking, Architecture and Storage (NAS)*, pp. 1-6, 2022.
- [32] L. B. Hinkle, and **V. Metsis**. Individual Convolution of Ankle, Hip, and Wrist Data for Activities-of-Daily-Living Classification. *18th International Conference on Intelligent Environments (IE 2022)*, pp. 1-4, 2022.
- [33] A. Katrompas, T. Ntakouris, and **V. Metsis**. Recurrence and Self-attention vs the Transformer for Time-Series Classification: A Comparative Study. *20th International Conference on Artificial Intelligence in Medicine (AIME 2022)*, pp. 99-109, 2022.
- [34] G. Atkinson, and **V. Metsis**. TSAR: a time series assisted relabeling tool for reducing label noise. *14th Pervasive Technologies Related to Assistive Environments Conference*, 2021.
- [35] G. Atkinson, and **V. Metsis**. A Survey of Methods for Detection and Correction of Noisy Labels in Time Series Data. *IFIP International Conference on Artificial Intelligence Applications and Innovations*, pp. 479-493, 2021.
- [36] A. H. Ngu, S. Coyne, P. Srinivas, and **V. Metsis**. Collaborative Edge-Cloud Computing for Personalized Fall Detection. *IFIP International Conference on Artificial Intelligence Applications and Innovations*, pp. 323-336, 2021.
- [37] L. B. Hinkle, and **V. Metsis**. Model Evaluation Approaches for Human Activity Recognition from Time-Series Data. *International Conference on Artificial Intelligence in Medicine*, pp. 209-215, 2021.

- [38] A. Katrompas, and **V. Metsis**. Rate My Professors: A Study Of Bias and Inaccuracies In Anonymous Self-Reporting. *2021 2nd International Conference on Computing and Data Science (CDS)*, pp. 536-542, 2021.
- [39] A. Katrompas, and **V. Metsis**. Enhancing LSTM Models with Self-attention and Stateful Training. *Proceedings of SAI Intelligent Systems Conference*, pp. 217-235, 2021.
- [40] A. H. Ngu, **V. Metsis**, S. Coyne, B. Chung, R. Pai, and J. Chang. Personalized Fall Detection System. *2020 IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops)*, pp. 1-7, 2020.
- [41] G. Atkinson, and **V. Metsis**. Identifying label noise in time-series datasets. *Adjunct Proceedings of the 2020 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2020 ACM International Symposium on Wearable Computers*, pp. 238-243, 2020.
- [42] G. Koutitas, K. S. Smith, G. Lawrence, **V. Metsis**, C. Stamper, M. Trahan, and T. Lehr. A virtual and augmented reality platform for the training of first responders of the ambulance bus. *Proceedings of the 12th ACM International Conference on Pervasive Technologies Related to Assistive Environments*, pp. 299-302, 2019.
- [43] G. Atkinson, and **V. Metsis**. Identifying label noise in time-series datasets. *Adjunct Proceedings of the 2020 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2020 ACM International Symposium on Wearable Computers*, pp. 238-243, 2020.
- [44] L. B. Hinkle, K. K. Roudposhti, and **V. Metsis**. Physiological Measurement for Emotion Recognition in Virtual Reality. *Accepted to appear at The 2nd International Conference on Data Intelligence and Security (ICDIS 2019), South Padre Island, TX, USA (To Appear)*
- [45] G. Koutitas, K. S. Smith, G. Lawrence, **V. Metsis**, C. Stamper, M. Trahan, and T. Lehr. A virtual and augmented reality platform for the training of first responders of the ambulance bus. *In Proceedings of the 12th ACM International Conference on Pervasive Technologies Related to Assistive Environments*, pp. 299-302. ACM, 2019.
- [46] A. Anderson, T. Hsiao, and **V. Metsis**. Classification of Emotional Arousal During Multimedia Exposure. *In the proceedings of the 10th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA'17), Rhodes, Greece, June 2015*.
- [47] H. Espiritu and **V. Metsis**. Automated Detection of Sleep Disorder-Related Events from Polysomnographic Data. *In Healthcare Informatics (ICHI), 2015 International Conference on*, pp. 562-569. IEEE, 2015.
- [48] **V. Metsis**, I. D. Schizas, and G. Marshall. Real-time subspace denoising of polysomnographic data. *In Proceedings of the 8th ACM International Conference on Pervasive Technologies Related to Assistive Environments*, p. 77. ACM, 2015.
- [49] A. Lioulemes, P. Sassaman, S. N. Gieser, V. Karkaletsis, F. Makedon, and **V. Metsis**. Self-managed patient-game interaction using the barrett WAM arm for motion analysis. *In Proceedings of the 8th ACM International Conference on Pervasive Technologies Related to Assistive Environments*, p. 34. ACM, 2015.
- [50] M. Papakostas, J. Staud, F. Makedon, and **V. Metsis**. Monitoring breathing activity and sleep patterns using multimodal non-invasive technologies. *In Proceedings*

of the 8th ACM International Conference on Pervasive Technologies Related to Assistive Environments, p. 78. ACM, 2015.

- [51] D. Paulk, **V. Metsis**, C. McMurrugh, and F. Makedon. A supervised learning approach for fast object recognition from RGB-D data. In *Proceedings of the 7th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA '14)*.
- [52] S. Phan, A. Lioulemes, C. Lutterodt, F. Makedon, and **V. Metsis**. Guided physical therapy through the use of the Barrett WAM robotic arm. In *Haptic, Audio and Visual Environments and Games (HAVE), 2014 IEEE International Symposium on*, pp. 24-28. IEEE, 2014.
- [53] A. Lioulemes, G. Galatas, **V. Metsis**, G. L. Mariottini, and F. Makedon. Safety challenges in using AR.Drone to collaborate with humans in indoor environments. In *Proceedings of the 7th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA '14)*.
- [54] S. N. Gieser, **V. Metsis**, and F. Makedon. Quantitative evaluation of the kinect skeleton tracker for physical rehabilitation exercises. In *Proceedings of the 7th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA '14)*.
- [55] M. Gardner, **V. Metsis**, E. Becker and F. Makedon. Modeling the Effect of Attention Deficit in Game-Based Motor Ability Assessment of Cerebral Palsy Patients. In *the proceedings of the 6th Workshop on Affect and Behaviour Related Assistance, in PETRA 2013*.
- [56] A. Papangelis, R. Gatchel, **V. Metsis**, and F. Makedon. An adaptive dialogue system for assessing post traumatic stress disorder, In *Proceedings of the 6th International Conference on Pervasive Technologies Related to Assistive Environments (p. 49)*. ACM, 2013.
- [57] C. D. McMurrugh, **V. Metsis**, J. Rich, and F. Makedon. An eye tracking dataset for point of gaze detection, In: *Proceedings of the Symposium on Eye Tracking Research and Applications*, pp. 305-308. ACM, 2012. doi:0010.1145/2168556.2168622
- [58] C. D. McMurrugh, J. Rich, **V. Metsis**, A. Nguyen and F. Makedon. Low-cost head position tracking for gaze point estimation. In: *Proceedings of the 5th International Conference on Pervasive Technologies Related to Assistive Environments*, p. 22. ACM, 2012. doi:0010.1145/2413097.2413125
- [59] Z. Zhang, W. Liu, **V. Metsis**, and V. Athitsos. A Viewpoint-Independent Statistical Method for Fall Detection. In: *Proceedings of the International Conference on Pattern Recognition (ICPR)*. 2012.
- [60] **V. Metsis**, G. Galatas, A. Papangelis, D. Kosmopoulos, and F. Makedon. Recognition of sleep patterns using a bed pressure mat. In: *Proceedings of the 4th International Conference on Pervasive Technologies Related to Assistive Environments*, p. 9. ACM, 2011. doi:0010.1145/2141622.2141633
- [61] A. Papangelis, **V. Metsis**, J. Shawe-Taylor, and F. Makedon. Sensor placement and coordination via distributed multi-agent cooperative control. In: *Proceedings of the 3rd International Conference on Pervasive Technologies Related to Assistive Environments*, p. 14. ACM, 2010 doi:0010.1145/1839294.1839311

- [62] K. Park, Y. Lin, **V. Metsis**, Z. Le, and F. Makedon. Abnormal human behavioral pattern detection in assisted living environments. In: *Proceedings of the 3rd International Conference on Pervasive Technologies Related to Assistive Environments*, p. 9. ACM, 2010. doi:0010.1145/1839294.1839305
- [63] **V. Metsis**, H. Huang, F. Makedon, and A. Tzika. Heterogeneous Data Fusion to Type Brain Tumor Biopsies. In: *Proceedings of the 5th IFIP Conference on Artificial Intelligence Applications and Innovations (AIAI'2009)*, April 23-25, 2009, Thessaloniki, Greece, Springer, 2009, p. 233. doi:0010.1007/978-1-4419-0221-4_28
- [64] R. Arora, **V. Metsis**, R. Zhang, and F. Makedon. Providing QoS in ontology centered context aware pervasive systems. In: *Proceedings of the 2nd International Conference on Pervasive Technologies Related to Assistive Environments*, ACM, 2009, p. 8. doi:0010.1145/1579114.1579122
- [65] I. Ahmad, R. Arora, D. White, **V. Metsis**, and R. Ingram. Energy-Constrained Scheduling of DAGs on Multiprocessors. In: *Proceedings of the International Conference on Contemporary Computing (IC3 2009)*, JIIT University, Noida, 2009. doi:0010.1007/978-3-642-03547-0_56
- [66] **V. Metsis**, Z. Le, Y. Lei, and F. Makedon. Towards an evaluation framework for assistive environments" In: *Proceedings of the 1st international conference on Pervasive Technologies Related to Assistive Environments*, ACM, 2008, p. 12. doi:0010.1145/1389586.1389601
- [67] K. Stamatakis, **V. Metsis**, V. Karkaletsis, M. Ruzicka, V. Svatek, V. E.A. Cabrera, and M. Polla. Content collection for the labeling of health-related web content. In: *Proceedings of the 11th Conference on Artificial Intelligence in Medicine (AIME 07)*, LNAI 4594, pp. 341-345, 2007. Amsterdam, 7-11 July, 2007. doi:0010.1007/978-3-540-73599-1_46
- [68] D.V. Gonzales, M.A. Mayer, A. Leis, V. Karkaletsis, K. Stamatakis, **V. Metsis**, P. Nasikas, M. Labsky, M. Ruzicka, V. Svatek, F. Lopez-Ostenero, V. Peinado, E.A. Cabrera, T. Honkela, M. Polla. AQUA (Assisting Quality Assessment): a system based on Semantic web and information extraction technologies to support medical quality labelling agencies. In: *Proceedings of the 12th World Congress on the Internet in Medicine (Mednet 2007)*, Leipzig , Germany , October 7-10, 2007. [PDF]
- [69] **V. Metsis**, I. Androutsopoulos and G. Paliouras. Spam Filtering with Naive Bayes – Which Naive Bayes?. In: *Proceedings of the 3rd Conference on Email and Anti-Spam (CEAS 2006)*, Mountain View, CA, USA, 2006. [PDF]
- [70] V. Karkaletsis, K. Stamatakis, **V. Metsis**, V. Redoumi, D. Tsarouhas. Health-related Web Content: quality labelling mechanisms and the MedIEQ approach. In: *Proceedings of the 4th International Conference On Information Communication Technologies in Health, Samos 2006, Greece*. [PDF]

Workshop Publications:

- [71] A. H. Ngu, **V. Metsis**, S. Coyne, B. Chung, R. Pai, and J. Chang. Personalized Fall Detection System. *2020 IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops)*, pp. 1-7, 2020.
- [72] T. Mauldin, A. H. Ngu, **V. Metsis**, M. E. Canby, J. Tesic. Experimentation and Analysis of Ensemble Deep Learning in IoT Applications. *Accepted to appear at The International Workshop on Very Large Internet of Things (VLIoT 2019)*, Los Angeles, CA, USA (To Appear)

- [73] **V. Metsis**, P. Jangyodsuk, V. Athitsos, M. Iversen and F. Makedon, Computer Aided Rehabilitation for Patients with Rheumatoid Arthritis, *In the proceedings of Cyber-Physical Systems (CPS) workshop, in ICNC 2013*.
- [74] E. Becker, **V. Metsis**, R. Arora, J. Vinjumur, Y. Xu, and F. Makedon, SmartDrawer: RFID-based smart medicine drawer for assistive environments, *Workshop on Affect and Behaviour Related Assistance in Support for the Elderly (ABRA 2009), Proceedings of the 2nd International Conference on Pervasive Technologies Related to Assistive Environments, ACM, 2009, p. 49*.

Posters and Abstracts:

- [75] **V. Metsis**, G. Lawrence, M. Trahan, K. S. Smith, and D. Tamir. Virtual Reality Environments for Returning Combat Veteran Social Anxiety and PTSD: Rapid Prototyping Methodologies for Intervention. *Society for Social Work and Research 23rd Annual Conference (SSWR 2019), San Francisco, CA, USA*.
- [76] **V. Metsis**, K. S. Smith, and D. Gobert. Integration of virtual reality with an omnidirectional treadmill system for multi-directional balance skills intervention. *In 2017 International Symposium on Wearable Robotics and Rehabilitation (WeRob), pp. 1-2. IEEE, 2017*.
- [77] D. Ebert, **V. Metsis**, and F. Makedon. Development and evaluation of a unity-based, kinect-controlled avatar for physical rehabilitation. *In Proceedings of the 8th ACM International Conference on Pervasive Technologies Related to Assistive Environments, p. 88. ACM, 2015*.
- [78] **V. Metsis**, G. Galatas, and F. Makedon, Automated Sleep Pattern Monitoring for Sleep Disorder Assessment, *IEEE Engineering in Medicine and Biology Society Dallas Chapter (Dallas-EMBS) - 2012 IEEE Texas Medical Device Symposium*.
- [79] **V. Metsis**, O. C. Andronesi, H. Huang, M. N. Mindrinos, L. G. Rahme, F. Makedon, and A. A. Tzika. Combination of Sparse and Wrapper Feature Selection from Multi-Source Data for Accurate Brain Tumor Typing. *In: Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 19th Annual Meeting & Exhibition, 7-13 May 2011, Montreal, Canada. [PDF]*

PROFESSIONAL
ACTIVITIES

Editorials & Organizer/Chair

- Guest Editor, MDPI Technologies Journal - Special Issue on Pervasive Technologies Related to Assistive Environments. (2018).
- Co-Chair, 3rd IEEE PerCom Workshop on Pervasive Health Technologies, Greece. (March 19-23, 2018).
- Chair, Special NSF Panel: Data Privacy for Pervasive Technologies Related to Assistive Environments, Corfu, Greece. (June 2017).
- Chair, Workshops General Chair - PETRA 2017 Conference, Corfu, Greece. (June 2017).
- Co-Chair, Program Committee Co-Chair at the 9th ACM International Conference on Pervasive Technologies Related to Assistive Environments (PETRA 2016). (June 29, 2016 - July 2, 2016).
- Co-Chair, Doctoral Consortium Chair - IEEE International Conference on Healthcare Informatics 2015 (ICHI 2015). (January 2015 - December 2015).
- Coordinator/Organizer, NSF Doctoral Consortium at PETRA 2017 Conference, Corfu, Greece. (June 2017).
- Chair, Workshop on Non-Invasive Monitoring Technologies for Sleep Disorder Assessment. (July 2015).

- Co-Chair, Program Committee Co-Chair - 8th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA 2015). (July 2015).

Program Committee/Referee Service:

- ACM Multimedia (MM) (2024)
- IEEE International Conference on Automatic Face and Gesture Recognition (FG) (2021 - present)
- AAAI Conference on Artificial Intelligence (2022).
- KDD 2020 Conference (2020).
- International Conference on Pervasive Technologies Related to Assistive Environments (PETRA). (2008 - Present).
- iWOAR 2018 - 5th International Workshop on Sensor-based Activity Recognition and Interaction, Germany (2018).
- The 4th IEEE International Conference on Collaboration and Internet Computing, Philadelphia, PA, United States. (2018).
- The IEEE International Conference on Ubiquitous Intelligence and Computing (UIC). (2017 - 2018).
- iWOAR 2016 - 3rd international Workshop on Sensor-based Activity Recognition and Interaction. (2016).
- PCI 2016 - 20th Pan-Hellenic Conference on Informatics. (2016).
- IEEE International Conference on Healthcare Informatics. (2015).
- 2014 IEEE 8th Sensor Array and Multichannel Signal Processing Workshop (SAM). (2014).
- International Symposium on Haptic Audio-Visual Environments and Games (HAVE). (2014).
- PanHellenic Conference on Informatics (PCI). (2012).
- Symposium on Eye Tracking Research & Applications. (2012).
- Workshop on Artificial Intelligence Applications in Biomedicine. (2012).
- International Conference on Artificial Intelligence Applications and Innovations (AIAI)
- Symposium on Eye Tracking Research & Applications (ETRA 2012)
- Workshop on Artificial Intelligence Applications in Biomedicine (AIAB 2012)

Journal Referee Service

- ACM Transactions on Computing for Healthcare
- Journal of Machine Learning Research (JMLR)
- IEEE Transactions on Affective Computing
- IEEE Transactions on Knowledge and Data Engineering (IEEE-TKDE)
- IEEE Transactions on Information Technology in Biomedicine (IEEE-TITB-EMBS)
- IEEE Transactions on Mobile Computing (IEEE-TMC)
- Springer Personal and Ubiquitous Computing
- Springer Universal Access in the Information Society
- Springer Artificial Intelligence Review
- Elsevier Expert Systems with Applications
- Elsevier Journal of Systems and Software
- Elsevier Artificial Intelligence in Medicine (AIIM)
- Elsevier Computer Methods and Programs in Biomedicine
- Journal of Parallel and Distributed Computing
- Journal of Network and Computer Applications
- International Journal on Digital Libraries (ECDL)
- Health Informatics Journal
- MDPI Applied Sciences Journal

Memberships

- Institute for Electrical and Electronics Engineers (IEEE), Member.

- Association for Computing Machinery (ACM), Member

HONORS &
AWARDS

- Alpha Chi Favorite Professor, Alpha Chi National Honor Society 2020
- Multiple NSF Student Conference Travel Awards 2008-2011
- Q-Invest Graduate Student Fellowship 2008
- Demokritos Research Fellow 2006-2007
- Honored talk at the B.Sc. graduation ceremony as the student with the highest GPA in the class (November 2005).