Ioannis Thomas Pavlidis

Curriculum Vitae
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Education

1996	Ph.D.	Computer Science	University of Minnesota
1995	M.S.	Computer Science	University of Minnesota
1989	M.S.	Robotics & Automation	Imperial College/University of London
1987	B.S. (Summa cum Laude)	Electrical Engineering	Democritus University of Thrace

Employment history

2006–	**Eckhard-Pfeiffer Professor**, Department of Computer Science, University of Houston
2002–2006	**Associate Professor**, Department of Computer Science, University of Houston
2001–2002	**Senior Principal Research Scientist**, Honeywell Laboratories, Honeywell Inc.
1999–2001	**Principal Research Scientist**, Honeywell Laboratories, Honeywell Inc.
1997–1999	**Senior Research Scientist**, Honeywell Laboratories, Honeywell Inc.
1996–1997	**Research Associate**, Honeywell Laboratories, Honeywell Inc.
1994–1996	**Research Assistant**, Department of Computer Science, University of Minnesota
1992–1994	**Teaching Assistant**, Department of Computer Science, University of Minnesota

Honors and awards

2017	Faculty Research Award, Department of Computer Science, University of Houston
2014	Faculty Research Award, Department of Computer Science, University of Houston
2010	Research Poster Award, Annual Meeting of The National Center for Human Performance
2010	Ph.D. Research Award, ACM Conference on Human Factors in Computing Systems (CHI)
2009	Research Poster Award, Conference on Medical Image Computing & Computer Assisted Intervention (MICCAI)
2006	Eckhard-Pfeiffer Distinguished Professorship, Department of Computer Science, University of Houston
2004	Faculty Research Award, Department of Computer Science, University of Houston
2001	Technical Achievement Award, Highest Honors in Honeywell Inc.
2001	Laboratory Technical Award, Honeywell Laboratories, Honeywell Inc.
2001	Individual Technical Award, Honeywell Laboratories, Honeywell Inc.
1999	Individual Technical Award, Honeywell Laboratories, Honeywell Inc.
1997	Team Technical Award, Honeywell Laboratories, Honeywell Inc.
1991	Fulbright Fellowship
1987	Summa cum Laude, Democritus University of Thrace
1981	Scholastic Excellence Award, Greek Department of Education

Research

- Since 1994 I have authored 154 papers, chapters or books on computer science, biomedical, and science of science topics (listed on pages 3–10). Included in this count are 11 patents, some of which led to successful products marketed by Honeywell Inc.
- As of January 2020, my h-index stands at 46 and my works have received nearly 7,000 citations. Google Scholar Profile: https://scholar.google.com/citations?user=E3oBkwwAAAAJ&hl=en.
- My current research is at the intersection of human-computer interaction, data science, and science of science. Applications include human-machine symbiosis in semi-autonomous vehicles, managing workplace stress/distractions, and prediction of future science directions.
- I have produced 6 datasets, 2 software packages, and 3 R packages as a result of my research (listed on page 10). Some of these products are widely used by academic researchers.

Grants

I have acquired about $12.1 million in external research grants since 2003. I have been the Principal Investigator (PI) in the overwhelming majority of these grants.

2018–2022	P Cirino, I Pavlidis, T Tolar. “Math learning disabilities among young adults in college: Structure, identification, and validation”. *Funding from NSF*	$1,228,040
2017–2020	I Pavlidis. “CHS: Medium: Collaborative Research: Managing stress in the workplace: Unobtrusive monitoring and adaptive interventions”. *Funding from NSF*	$409,898
2017–2020	S Huang, E Leiss, I Pavlidis, I Kakadiaris, R Verma. “REU Site: Research Experience for Undergraduates in data-centric computing”. *Funding from NSF*	$360,000
2017–2018	I Pavlidis. “Thermal response metrics for insider threat detection”. *Funding from IARPA*	$66,445
2017–2018	I Pavlidis. “EAGER: From genomics to brain science: What makes researchers tick in transdisciplinary initiatives”. *Funding from NSF*	$60,408
2017	I Pavlidis. “Residual data curation and analytics for the Toyota datasets”. *Funding from Texas A & M Transportation Institute*	$50,000
2016–2017	I Pavlidis. “Reconstructive surgery resident stress while learning novel microsurgical tasks”. *Funding from The Methodist Hospital Research Institute*	$8,686
2015–2016	I Pavlidis. “Yes we can”. *Funding from Arizona State University*	$21,000
2014–2018	S Huang, E Leiss, I Pavlidis, I Kakadiaris, R Verma. “REU Site: Undergraduate Research Experience in multimedia data analytics”. *Funding from NSF*	$360,001
2014–2017	I Pavlidis. “Toyota safety research project”. *Funding from Toyota Inc.*	$563,130
2012–2013	I Pavlidis. “Air quality mapping and related data management”. *Funding from Houston Endowment*	$40,000
2012–2013	I Pavlidis. “EAGER: The effect of stress and the role of computer mediation on exam performance”. *Funding from NSF*	$193,231
2011–2015	S Huang, E Leiss, I Pavlidis, I Kakadiaris, R Verma. “REU Site: Undergraduate Research Experience in computational science”. *Funding from NSF*	$350,000
2011–2015	I Pavlidis. “EESE: Experiencing ethics”. *Funding from NSF*	$299,325
2011–2012	I Pavlidis. “Multi-spectral imaging for the simultaneous detection of stress and concealed objects”. *Funding from NIST*	$50,000
2010–2012	I Pavlidis. “Spectral imaging sensor for improved biometric and human intent analysis II”. *Funding from DOD*	$239,974
2010–2011	I Pavlidis. “Remote human identification and intent determination from thermal imagery I”. *Funding from DOD*	$21,000
2010–2011	I Pavlidis. “EAGER: Improving human engagement and enjoyment in routine activities”. *Funding from NSF*	$159,068
2009–2010	I Pavlidis. “Spectral imaging sensor for improved biometric and human intent analysis I”. *Funding from DOD*	$36,000
2008–2011	I Pavlidis. “Do Nintendo surgeons defy stress?”. *Funding from NSF*	$478,285
2008–2011	S Huang, E Leiss, I Pavlidis, I Kakadiaris, R Verma. “REU Site: Research Experience for Undergraduates in computational science and cybersecurity”. *Funding from NSF*	$310,001
2008–2010	I Pavlidis. “Advanced Thermal Action Coding System (TACS)”. *Funding from DOD*	$502,249
2007–2010	I Pavlidis. “Co-design and testing of stress quantification experiments”. *Funding from Methodist Hospital*	$199,021.2
2007–2008	I Pavlidis. “Thermal Imaging – A novel non-contact method to detect apnea/hypopnea during polysomnography”. *Funding from NIH*	$50,000
2006–2008	I Pavlidis. “ATHEMOS – Advanced Technology Development”. *Funding from DOD*	$556,073
2006–2007	I Pavlidis. “Efficacy of prototype credibility assessment technologies”. *Funding from DOD*	$350,000
2006–2007	I Pavlidis. “Integrated CAI threat assessment”. *Funding from DOD*	$292,702

2006–2007	I Pavlidis. "Hostile intent". *Funding from DHS*	$135,000
2005–2009	S Huang, E Leiss, I Pavlidis, I Kakadiaris, R Verma. "SCI: REU Site: Undergraduate Research Experience in computational science and cybersecurity". *Funding from NSF*	$270,434
2005–2008	G Zouridakis, I Pavlidis, M Garbey, I Kakadiaris. "MRI: Acquisition of a hybrid system and research infrastructure for large-scale integration of biomedical data". *Funding from NSF*	$900,001
2005–2007	I Pavlidis. "Detection research and development support". *Funding from DHS*	$79,828
2005–2006	I Pavlidis. "Thermal deception detection systems". *Funding from DOD*	$955,692
2005–2006	I Pavlidis. "Experimental thermal imaging systems". *Funding from DHS*	$586,683
2004–2008	I Pavlidis. "Interacting with human physiology". *Funding from NSF*	$640,169
2004–2005	I Pavlidis. "Biomedical imaging". *Funding from Honeywell Inc.*	$50,000
2004–2005	I Pavlidis. "Novel thermal imaging systems and methodologies for next generation polygraphy". *Funding from DOD*	$493,288
2003–2007	I Pavlidis. "Collaborative Research: Capacity expansion in information assurance". *Funding from NSF*	$201,949
2003–2005	I Pavlidis. "Thermal imaging experimentation and analysis for deception detection". *Funding from DARPA*	$99,482
2003–2005	I Pavlidis. "Thermal facial screening". *Funding from DOD*	$301,000

Publications

Papers in refereed journals

1. Panagopoulos, G and I Pavlidis (Feb. 2020). Forecasting markers of habitual driving behaviors associated with crash risk. *IEEE Transactions on Intelligent Transportation Systems* **21**(2), 841–851. **[Journal Impact Factor ≡ 5.744]**.
2. Majeti, D, E Akleman, ME Ahmed, AM Petersen, B Uzzi, and I Pavlidis (2020). Scholar Plot: Design and evaluation of an information interface for faculty research performance. *Frontiers in Research Metrics and Analytics* **4**, 6.
3. Zaman, S, A Wesley, DRDC Silva, P Buddharaju, F Akbar, G Gao, G Mark, R Gutierrez-Osuna, and I Pavlidis (Nov. 2019). Stress and productivity patterns of interrupted, synergistic, and antagonistic office activities. *Scientific Data* **6**, 264. **[Journal Impact Factor ≡ 5.929]**.
4. Akbar, F, G Mark, I Pavlidis, and R Gutierrez-Osuna (Aug. 2019). An empirical study comparing unobtrusive physiological sensors for stress detection in computer work. *Sensors* **19**(17), 3766. **[Journal Impact Factor ≡ 3.031]**.
5. Pavlidis, I, I Garza, P Tsiamyrtzis, M Dcosta, JW Swanson, T Krouskop, and JA Levine (May 2019). Dynamic quantification of migrainous thermal facial patterns – A pilot study. *IEEE Journal of Biomedical and Health Informatics* **23**(3), 1225–1233. **[Journal Impact Factor ≡ 4.217]**.
6. Pavlidis, I, D Zavlin, AR Khatri, A Wesley, G Panagopoulos, and A Echo (Feb. 2019). Absence of stressful conditions accelerates dexterous skill acquisition in surgery. *Scientific Reports* **9**(1), 1747. **[Journal Impact Factor ≡ 4.122]**.
7. Patten, CA, JA Levine, PS Sinicrope, and IT Pavlidis (Dec. 2018). Exercise interventions for depressed smokers: The promise of community settings and robots. *Journal of Mental Health and Clinical Psychology* **2**(6), 1–5.
8. Pavlidis, I, A Khatri, P Buddharaju, M Manser, R Wunderlich, E Akleman, and P Tsiamyrtzis (Nov. 2018). Biofeedback arrests sympathetic and behavioral effects in distracted driving. *IEEE Transactions on Affective Computing*, 1–1. **[Journal Impact Factor ≡ 6.288]**.
9. Gomez, J, D Akleman, E Akleman, and I Pavlidis (Aug. 2018). Causality effects of interventions and stressors on driving behaviors under typical conditions. *Mathematics* **6**(8), 139. **[Journal Impact Factor ≡ 1.105]**.
10. Petersen, AM, D Majeti, K Kwon, ME Ahmed, and I Pavlidis (Aug. 2018). Cross-disciplinary evolution of the genomics revolution. *Science Advances* **4**(8), eaat4211. **[Journal Impact Factor ≡ 12.804]**.
11. Patten, C, J Levine, I Pavlidis, J Balls-Berry, A Shah, C Hughes, T Brockman, MV Soto, D Witt, G Koepp, et al. (May 2018). Survey of potential receptivity to robotic-assisted exercise coaching in a diverse sample of smokers and nonsmokers. *PLOS ONE* **13**(5), e0197090. **[Journal Impact Factor ≡ 2.776]**.
12. Taamneh, S, P Tsiamyrtzis, M Dcosta, P Buddharaju, A Khatri, M Manser, T Ferris, R Wunderlich, and I Pavlidis (Aug. 2017). A multimodal dataset for various forms of distracted driving. *Scientific Data* **4**, 170110. **[Journal Impact Factor ≡ 5.929]**.

13. Albayrak, L, K Khanipov, M Pimenova, G Golovko, M Rojas, I Pavlidis, S Chumakov, G Aguilar, A Chávez, WR Widger, et al. (Dec. 2016). The ability of human nuclear DNA to cause false positive low-abundance heteroplasmy calls varies across the mitochondrial genome. *BMC Genomics* **17**(1), 1017. **[Journal Impact Factor ≡ 3.501]**.
14. Pavlidis, I, M Dcosta, S Taamneh, M Manser, T Ferris, R Wunderlich, E Akleman, and P Tsiamyrtzis (May 2016). Dissecting driver behaviors under cognitive, emotional, sensorimotor, and mixed stressors. *Scientific Reports* **6**, 25651. **[Journal Impact Factor ≡ 4.122]**.
15. Semendeferi, I, P Tsiamyrtzis, M Dcosta, and I Pavlidis (Feb. 2016). Connecting Past with Present: A Mixed-Methods Science Ethics Course and its Evaluation. *Science and Engineering Ethics* **22**(1), 251–274. **[Journal Impact Factor ≡ 2.275]**.
16. Petersen, AM, I Pavlidis, and I Semendeferi (Dec. 2014). A quantitative perspective on ethics in large team science. *Science and Engineering Ethics* **20**(4), 923–945. **[Journal Impact Factor ≡ 2.275]**.
17. Pavlidis, I, AM Petersen, and I Semendeferi (Sept. 2014). Together we stand. *Nature Physics* **10**(10), 700. **[Journal Impact Factor ≡ 20.113]**.
18. Zhou, Y, P Tsiamyrtzis, P Lindner, I Timofeyev, and I Pavlidis (May 2013). Spatiotemporal smoothing as a basis for facial tissue tracking in thermal imaging. *IEEE Transactions on Biomedical Engineering* **60**(5), 1280–1289. **[Journal Impact Factor ≡ 4.491]**.
19. Shastri, D, M Papadakis, P Tsiamyrtzis, B Bass, and I Pavlidis (July 2012). Perinasal imaging of physiological stress and its affective potential. *IEEE Transactions on Affective Computing* **3**(3), 366–378. **[Journal Impact Factor ≡ 6.288]**.
20. Pavlidis, I, P Tsiamyrtzis, D Shastri, A Wesley, Y Zhou, P Lindner, P Buddharaju, R Joseph, A Mandapati, B Dunkin, et al. (Mar. 2012). Fast by nature-how stress patterns define human experience and performance in dexterous tasks. *Scientific Reports* **2**, 305. **[Journal Impact Factor ≡ 4.122]**.
21. Manohar, C, S McCrady, Y Fujiki, I Pavlidis, and J Levine (Dec. 2011). Evaluation of the accuracy of a triaxial accelerometer embedded into a cell phone platform for measuring physical activity. *Journal of Obesity & Weight Loss Therapy* **1**(106). **[Journal Impact Factor ≡ 1.22]**.
22. Manohar, C, SM Crady, Y Fujiki, I Pavlidis, and J Levine (Apr. 2010). Laboratory evaluation of the accuracy of a triaxial accelerometer embedded into a cell phone platform for measuring physical activity. *The FASEB Journal*. **[Journal Impact Factor ≡ 5.391]**.
23. Fei, J and I Pavlidis (Apr. 2010). Thermistor at a distance: Unobtrusive measurement of breathing. *IEEE Transactions on Biomedical Engineering* **57**(4), 988–998. **[Journal Impact Factor ≡ 4.491]**.
24. Manohar, C, S McCrady, IT Pavlidis, and JA Levine (Nov. 2009). An accelerometer-based earpiece to monitor and quantify physical activity. *Journal of Physical Activity and Health* **6**(6), 781–789. **[Journal Impact Factor ≡ 2.079]**.
25. Murthy, JN, J van Jaarsveld, J Fei, I Pavlidis, RI Harrykissoon, JF Lucke, S Faiz, and RJ Castriotta (Nov. 2009). Thermal infrared imaging: A novel method to monitor airflow during polysomnography. *Sleep* **32**(11), 1521–1527. **[Journal Impact Factor ≡ 4.571]**.
26. Shastri, D, A Merla, P Tsiamyrtzis, and I Pavlidis* (Feb. 2009). Imaging facial signs of neurophysiological responses. *IEEE Transactions on Biomedical Engineering* **56**(2), 477–484. **[Journal Impact Factor ≡ 4.491]**.
27. Levine, JA, IT Pavlidis, L MacBride, Z Zhu, and P Tsiamyrtzis (2009). Description and clinical studies of a device for the instantaneous detection of office-place stress. *Work* **34**(3), 359–364.
28. Fujiki, Y, K Kazakos, C Puri, P Buddharaju, I Pavlidis, and J Levine (Apr. 2008). NEAT-o-Games: Blending physical activity and fun in the daily routine. *Comput. Entertain.* **6**(2), 21:1–21:22.
29. Pavlidis, I, J Dowdall, N Sun, C Puri, J Fei, and M Garbey (Oct. 2007). Interacting with human physiology. *Computer Vision and Image Understanding* **108**(1). Special Issue on Vision for Human-Computer Interaction, 150–170. **[Journal Impact Factor ≡ 2.645]**.
30. Garbey, M, N Sun, A Merla, and I Pavlidis (Aug. 2007). Contact-free measurement of cardiac pulse based on the analysis of thermal imagery. *IEEE Transactions on Biomedical Engineering* **54**(8), 1418–1426. **[Journal Impact Factor ≡ 4.491]**.
31. Dowdall, J, IT Pavlidis, and P Tsiamyrtzis (May 2007). Coalitional tracking. *Computer Vision and Image Understanding* **106**(2). Special issue on Advances in Vision Algorithms and Systems beyond the Visible Spectrum, 205–219. **[Journal Impact Factor ≡ 2.645]**.
32. Buddharaju, P, IT Pavlidis, P Tsiamyrtzis, and M Bazakos (Apr. 2007). Physiology-based face recognition in the thermal infrared spectrum. *IEEE Transactions on Pattern Analysis and Machine Intelligence* **29**(4), 613–626. **[Journal Impact Factor ≡ 17.730]**.
33. Tsiamyrtzis, P, J Dowdall, D Shastri, IT Pavlidis, MG Frank, and P Ekman (Feb. 2007). Imaging facial physiology for the detection of deceit. *International Journal of Computer Vision* **71**(2), 197–214. **[Journal Impact Factor ≡ 6.071]**.

34. Bebis, G, A Gyaourova, S Singh, and I Pavlidis (July 2006). Face recognition by fusing thermal infrared and visible imagery. *Image and Vision Computing* **24**(7), 727–742. **[Journal Impact Factor ≡ 2.747]**.
35. Pollina, DA, AB Dollins, SM Senter, TE Brown, I Pavlidis, JA Levine, and AH Ryan (July 2006). Facial skin Surface temperature changes during a "Concealed Information" Test. *Annals of Biomedical Engineering* **34**(7), 1182–1189. **[Journal Impact Factor ≡ 3.474]**.
36. Murthy, R and I Pavlidis (May 2006). Noncontact measurement of breathing function. *IEEE Engineering in Medicine and Biology Magazine* **25**(3), 57–67.
37. Morellas, V, I Pavlidis, and P Tsiamyrtzis (Oct. 2003). DETER: Detection of events for threat evaluation and recognition. *Machine Vision and Applications* **15**(1), 29–45. **[Journal Impact Factor ≡ 1.788]**.
38. Dowdall, J, I Pavlidis, and G Bebis (July 2003). Face detection in the near-IR spectrum. *Image and Vision Computing* **21**(7). Special issue on Computer Vision Beyond the Visible Spectrum, 565–578. **[Journal Impact Factor ≡ 2.747]**.
39. Pavilidis, I and B Bhanu (July 2003). Guest editorial: Special issue on computer vision beyond the visible spectrum. *Image and Vision Computing* **21**(7), 563–564. **[Journal Impact Factor ≡ 2.747]**.
40. Pavlidis, I and J Levine (Nov. 2002). Thermal image analysis for polygraph testing. *IEEE Engineering in Medicine and Biology Magazine* **21**(6), 56–64.
41. Pavlidis, I, NL Eberhardt, and JA Levine (Jan. 2002). Human behaviour: Seeing through the face of deception. *Nature* **415**(6867), 35. **[Journal Impact Factor ≡ 43.070]**.
42. Pavlidis, I, V Morellas, P Tsiamyrtzis, and S Harp (Oct. 2001). Urban surveillance systems: From the laboratory to the commercial world. *Proceedings of the IEEE* **89**(10), 1478–1497. **[Journal Impact Factor ≡ 10.694]**.
43. Levine, JA, I Pavlidis, and M Cooper (June 2001). The face of fear. *Lancet* **357**(9270), 1757–1757. **[Journal Impact Factor ≡ 59.102]**.
44. Pavlidis, I, V Morellas, and N Papanikolopoulos (June 2000). A vehicle occupant counting system based on near-infrared phenomenology and fuzzy neural classification. *IEEE Transactions on Intelligent Transportation Systems* **1**(2), 72–85. **[Journal Impact Factor ≡ 5.744]**.
45. Bhanu, B, I Pavlidis, and R Hummel (May 2000). Guest editorial: Special issue on computer vision beyond the visible spectrum. *Machine Vision and Applications* **11**(6), 265–266. **[Journal Impact Factor ≡ 1.788]**.
46. Pavlidis, I, P Symosek, B Fritz, M Bazakos, and N Papanikolopoulos (May 2000). Automatic detection of vehicle occupants: The imaging problem and its solution. *Machine Vision and Applications* **11**(6), 313–320. **[Journal Impact Factor ≡ 1.788]**.
47. Levine, J, P Baukol, and I Pavlidis (Dec. 1999). The energy expended in chewing gum. *New England Journal of Medicine* **341**(27), 2100–2100. **[Journal Impact Factor ≡ 70.670]**.
48. Pavlidis, I, N Papanikolopoulos, and R Mavuduru (Dec. 1998). Signature identification through the use of deformable structures. *Signal Processing* **71**(2), 187–201. **[Journal Impact Factor ≡ 4.086]**.
49. Pavlidis, I, R Singh, and NP Papanikolopoulos (Nov. 1998). On-line handwriting recognition using physics-based shape metamorphosis. *Pattern Recognition* **31**(11), 1589–1600. **[Journal Impact Factor ≡ 5.898]**.

Patents

1. Pavlidis, I (Mar. 2013). "Imaging facial signs of neuro-physiological responses". US Patent 8,401,261.
2. Pavlidis, I and V Morellas (Dec. 2006). "Cooperative camera network". US Patent 7,149,325.
3. Pavlidis, I, ME Bazakos, and V Morellas (Nov. 2006). "Controlled environment thermal image detection system and methods regarding same". US Patent 7,138,905.
4. Pavlidis, I and JA Levine (Sept. 2006). "System and method using thermal image analysis and slope threshold classification for polygraph testing". US Patent 7,111,980.
5. Pavlidis, I (July 2006). "Near-infrared disguise detection". US Patent 7,076,088.
6. Pavlidis, I and JB Dowdall (Apr. 2006). "Near-infrared method and system for use in face detection". US Patent 7,027,619.
7. Pavlidis, I (Feb. 2006). "Detection system and method using thermal image analysis". US Patent 6,996,256.
8. Pavlidis, I (Feb. 2005). "System and method using thermal image analysis for polygraph testing". US Patent 6,854,879.
9. Pavlidis, I, PF Symosek, and BS Fritz (Dec. 2004). "Near-IR human detector". US Patent 6,829,370.
10. Pavlidis, I, PF Symosek, and BS Fritz (Apr. 2004). "Near-infrared disguise detection". US Patent 6,718,049.
11. Pavlidis, I, PF Symosek, and BS Fritz (Apr. 2002). "Near-IR human detector". US Patent 6,370,260.

Papers in refereed conference proceedings

1. Blank, C, S Zaman, A Wesley, P Tsiamyrtzis, DR Da Cunha Silva, R Gutierrez-Osuna, G Mark, and I Pavlidis (2020). Emotional footprints of email interruptions. In: *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. CHI '20. Honolulu, HI, USA: Association for Computing Machinery, pp.155:1–155:12. https://doi.org/10.1145/3313831.3376282. **[CORE Rank ≡ A*]**.
2. Akbar, F, AE Bayraktaroglu, P Buddharaju, DR Da Cunha Silva, G Gao, T Grover, R Gutierrez-Osuna, NC Jones, G Mark, I Pavlidis, K Storer, Z Wang, A Wesley, and S Zaman (May 2019). Email makes you sweat: Examining email interruptions and stress using thermal imaging. In: *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. CHI '19. Glasgow, Scotland UK: ACM, pp.668:1–668:14. http://doi.acm.org/10.1145/3290605.3300898. **[CORE Rank ≡ A*]**.
3. Duong, D, D Shastri, and I Pavlidis (Oct. 2017). Dynamic 3D print of the breathing function. In: *Proceedings of the 17th IEEE International Conference on Bioinformatics and Bioengineering*. BIBE '17, pp.402–408. **[CORE Rank ≡ C]**.
4. Khanipov, K, L Albayrak, G Golovko, M Pimenova, P Ioannis, and Y Fofanov (Oct. 2017). Novel computational approach for identification of highly mutated integrated HIV genomes. In: *Proceedings of the 17th IEEE International Conference on Bioinformatics and Bioengineering*. BIBE '17, pp.246–248. **[CORE Rank ≡ C]**.
5. Dcosta, M, D Shastri, P Tsiamyrtzis, and I Pavlidis (May 2016). Turning security monitoring into an engaging high performance task. In: *2016 IEEE Symposium on Technologies for Homeland Security (HST)*, pp.1–2.
6. Khatri, A, D Shastri, P Tsiamyrtzis, I Uyanik, E Akleman, and I Pavlidis (May 2016). Effects of simple personalized goals on the usage of a physical activity app. In: *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*. CHI EA '16. San Jose, California, USA: ACM, pp.2249–2256. http://doi.acm.org/10.1145/2851581.2892366. **[CORE Rank ≡ A*]**.
7. Taamneh, S, M Dcosta, KA Kwon, and I Pavlidis (May 2016). SubjectBook: Hypothesis-Driven Ubiquitous Visualization for Affective Studies. In: *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*. CHI EA '16. San Jose, California, USA: ACM, pp.1483–1489. http://doi.acm.org/10.1145/2851581.2892338. **[CORE Rank ≡ A*]**.
8. Tsiamyrtzis, P, M Dcosta, D Shastri, E Prasad, and I Pavlidis (May 2016). Delineating the Operational Envelope of Mobile and Conventional EDA Sensing on Key Body Locations. In: *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. CHI '16. San Jose, California, USA: ACM, pp.5665–5674. http://doi.acm.org/10.1145/2858036.2858536. **[CORE Rank ≡ A*]**.
9. Turchaninova, A, A Khatri, I Uyanik, and I Pavlidis (Oct. 2015). Role model in human physical activity. In: *Proceedings of the 2015 Conference on Wireless Health*. WH '15. Bethesda, Maryland: ACM, pp.21:1–21:6. http://doi.acm.org/10.1145/2811780.2811917.
10. Ugur, M, D Shastri, P Tsiamyrtzis, M Dcosta, A Kalpakci, C Sharp, and I Pavlidis (Sept. 2015). Evaluating smartphone-based user interface designs for a 2D psychological questionnaire. In: *Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing*. UbiComp '15. Osaka, Japan: ACM, pp.275–282. http://doi.acm.org/10.1145/2750858.2805851. **[CORE Rank ≡ A*]**.
11. Dcosta, M, D Shastri, and I Pavlidis (May 2015). Perinasal indicators of malevolence. In: *Proceedings of the 11th IEEE International Conference and Workshops on Automatic Face and Gesture Recognition*. Vol. 1. FG '15, pp.1–4. **[CORE Rank ≡ C]**.
12. Dcosta, M, D Shastri, R Vilalta, JK Burgoon, and I Pavlidis (May 2015). Perinasal indicators of deceptive behavior. In: *Proceedings of the 11th IEEE International Conference and Workshops on Automatic Face and Gesture Recognition*. Vol. 1. FG '15, pp.1–8. **[CORE Rank ≡ C]**.
13. Uyanik, I, A Khatri, D Majeti, M Ugur, D Shastri, and I Pavlidis (Apr. 2015). Using accelerometer data to estimate surface incline and its walking app potential. In: *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems*. CHI EA '15. Seoul, Republic of Korea: ACM, pp.1397–1402. http://doi.acm.org/10.1145/2702613.2732764. **[CORE Rank ≡ A*]**.
14. Uyanik, I, A Khatri, P Tsiamyrtzis, and I Pavlidis (Oct. 2014). Design and usage of an ozone mapping app. In: *Proceedings of the 2014 Conference on Wireless Health*. WH '14. Bethesda, MD, USA: ACM, pp.1:1–1:7. http://doi.acm.org/10.1145/2668883.2668885.
15. Kwon, KA, D Shastri, and I Pavlidis (Sept. 2014). Interfacing information in affective user studies. In: *Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct Publication*. UbiComp '14 Adjunct. Seattle, Washington: ACM, pp.87–90. http://doi.acm.org/10.1145/2638728.2638799.
16. Uyanik, I, D Price, P Tsiamyrtzis, and I Pavlidis (Nov. 2013). Interfacing real-time ozone information. In: *Proceedings of the 1st ACM SIGSPATIAL International Workshop on MapInteraction*. ACM, pp.20–23.
17. Uyanik, I, P Lindner, P Tsiamyrtzis, D Shah, NV Tsekos, and IT Pavlidis (June 2013). Applying a level set method for resolving physiologic motions in free-breathing and non-gated cardiac MRI. In: *Functional Imaging and Modeling of*

the Heart - FIMH 2013. Ed. by S Ourselin, D Rueckert, and N Smith. Berlin, Heidelberg: Springer Berlin Heidelberg, pp.466–473.

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Books

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2. Pavlidis, I, V Morellas, and P Roeber (2003). *Programming Cameras and Pan-Tilts with DirectX and Java*. Morgan Kaufmann Pub.

Book chapters

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2. Buddharaju, P and I Pavlidis (2011). "Face recognition under the skin". In: *Multibiometrics for Human Identification*. Cambridge Univ. Press, pp.74–92.
3. Bourlai, T, P Buddharaju, I Pavlidis, and B Bass (2010). "Methodological advances on pulse measurement through functional imaging". In: *Computational Surgery and Dual Training*. Springer, pp.101–121.
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5. Shastri, D, A Wesley, and I Pavlidis (2008). "Contact-free stress monitoring for user's divided attention". In: *Human Computer Interaction*. IntechOpen.
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9. Pavlidis, I, C Stathopoulos, and T Faltesek (2003). "Video-based surveillance for chem-bio protection of buildings". In: *Multisensor Surveillance Systems*. Springer, pp.97–111.
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Datasets

1. Wesley, A, S Zaman, C Blank, and I Pavlidis (Jan. 2020). *Displayed Emotions Dataset on Dual Task*. https://doi.org/10.17605/osf.io/mhdgt. Open Science Framework.
2. Zaman, S, A Wesley, D Cunha, P Buddharaju, F Akbar, G Gao, G Mark, R Gutierrez-Osuna, and I Pavlidis (Nov. 2019). *Office Tasks 2019 – A Multimodal Dataset*. https://doi.org/10.17605/osf.io/zd2tn. Open Science Framework.

3. Pavlidis, I, D Zavlin, AR Khatri, A Wesley, G Panagopoulos, and A Echo (Feb. 2019). *Microsurgery Study – A Multimodal Dataset for Surgical Skill Acquisition Among Common People*. https://doi.org/10.17605/osf.io/9he58. Open Science Framework.
4. Pavlidis, I, A Khatri, and P Tsiamyrtzis (Nov. 2018). *SIMULATOR STUDY II – A Multimodal Dataset for Biofeedback in Distracted Driving*. https://doi.org/10.17605/osf.io/sxuc3. Open Science Framework.
5. Petersen, AM, D Majeti, K Kwon, ME Ahmed, and I Pavlidis (Aug. 2018). *Cross-Disciplinary Evolution of the Genomics Revolution*. https://doi.org/10.17605/osf.io/7nb6d. Open Science Framework.
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Software

1. Buddharaju, P and I Pavllidis (2019). *S-Interface Software in figshare*. https://figshare.com/articles/S-Interface_Software/8847683.
2. Majeti, D, ME Emtiaz, and I Pavlidis (2019). *Scholar Plot*. Version 2.0. http://scholarplot.org.

R packages

1. Zaman, S, P Tsiamyrtzis, and I Pavllidis (Jan. 2020). *CHI 2020 Displayed Emotions Methods*. https://github.com/UH-CPL/CHI20-Displayed-Emotions-Methods.
2. Zaman, S and I Pavllidis (Nov. 2019). *Office Tasks 2019 Methods*. https://github.com/UH-CPL/Office-Tasks-2019-Methods.
3. Panagopoulos, G and I Pavllidis (Apr. 2019). *Machine Learning Methods for Distracted and Aggressive Driving*. https://georgepanagopoulos.shinyapps.io/ForecastRoadBehavior/.

Major invited talks

- Invited speaker, *From genomics to brain science: What makes researchers tick in transdisciplinary initiativess*, SciSIP Grantee Workshop, Atlanta, Georgia, October 2019.
- Invited speaker, *Dissecting driver behaviors under cognitive, emotional, sensorimotor, and mixed stressors*, Department of Electrical and Computer Engineering, Democritus University of Thrace, Xanthi, Greece, October 2018.
- Invited speaker, *Dissecting driver behaviors under distracting stressors*, Texas A&M Transportation Technology Conference, College Station, Texas, May 2017.
- Invited speaker, *Dissecting driver behaviors under cognitive, emotional, sensorimotor, and mixed stressors*, Department of Computer Science and Engineering, University of Michigan, Ann Arbor, Michigan, April 2017.
- Keynote speaker, *Deception detection in the 2000s*, ACM Workshop on Multimodal Deception Detection – WMDD 2015, Seattle, Washington, November 2015.
- Invited speaker, *Unobtrusive and continuous monitoring of physiological variables with applications*, Nutrition Obesity Research Center, University of Alabama at Birmingham, Birmingham, Alabama, October 2014.
- Invited speaker, *Facial emotion processing*, Society for Affective Sciences, Bethesda, Maryland, April 2014.
- Invited speaker, *Beware of sympathetic looping in surgery and beyond*, Media Labs, MIT, Cambridge, Massachusetts, November 2013.
- Invited speaker, *Beware of sympathetic looping in surgery and beyond*, National Institute of Standards, Gaithersburg, Maryland, October 2013.
- Invited speaker, *Beware of sympathetic looping in surgery and beyond*, Methodist Institute for Technology, Innovation, and Education, Houston, Texas, September 2013.
- Invited Speaker, *Fast by nature – How stress patterns define human experience and performance*, College of Engineering, Texas A&M University, College Station, Texas, September 2013.
- Invited speaker, *Fast by nature – How stress patterns define human experience and performance*, Digital Technology Center, University of Minnesota, Minneapolis, Minnesota, April 2013.
- Invited speaker, *Fast by nature – How stress patterns define human experience and performance*, Department of Electrical Engineering, University of California-Riverside, Riverside, California, April 2013.
- Invited speaker, *Fast by nature – How stress patterns define human experience and performance*, Department of Computer and Information Sciences, Rutgers University, Piscataway, New Jersey, March 2013.
- Invited speaker, *Fast by nature – How stress patterns define human experience and performance*, IBM T.J. Watson Research Center, Yorktown Heights, New York, March 2013.
- Invited speaker, *Fast by nature – How stress patterns define human experience and performance*, Centre Interfacultaire en Sciences Affectives, University of Geneva, Geneva, Switzerland, June 2012.
- Invited speaker, *Fast by nature – How stress patterns define human experience and performance*, Department of Computer Science and Engineering, University of North Texas, Denton, Texas, May 2012.

- Keynote speaker, *Quantitative Stress Measurement and Procedural Competence*, , 4th Annual American College of Surgeons Accredited Educational Institutes Postgraduate Course, Houston, Texas, September 2011.
- Invited speaker, *Fast by nature – How stress patterns define human experience and performance*, Department of Electrical and Computer Engineering, Old Dominion University, Norfolk, Virginia, December 2010.
- Keynote speaker, *A novel way to conduct human studies and do some good*, 4th IGT-University of Nevada Engineering Symposium, Reno, Nevada, May 2010.
- Keynore speaker, *Imaging stress*, 4th International Symposium on Visual Computing, Las Vegas, Nevada, December 2008.
- Invited speaker, *From DNA to facial expressions: Detecting stress phenotypes and genotypes*, Futures Conferences on Personalized Medicine, The Golf Coast Consortia, A Joint Program of Rice University, Baylor College of Medicine, University of Houston, University of Texas Medical Branch at Galveston, and University of Texas M.D. Anderson Cancer Center, Houston, Texas, June 2008.
- Invited speaker, *Computing stress*, Computer Science Department, Texas A&M University, College Station, Texas, April 2008.
- Invited Speaker, *Virtual thermistor*, M.D. Anderson Cancer Center, Houston, Texas, February 2008.
- Invited speaker, *Looking through the human face*, University of Technology Sydney, Sydney, Australia, November 2006.
- Invited speaker, *Looking through the human face*, IBM T.J. Watson Research Center, Yorktown Heights, New York, June 2006.
- Invited speaker, *Interacting with human physiology*, Computer Science Department, Texas A&M University, College Station, Texas, October 2005.
- Invited speaker, *Interacting with human physiology*, Keck Seminar at Rice University, Houston, Texas, February 2005.
- Invited speaker, *Estimation of pulse, blood flow rate, and vessel location from thermal video*, Computer Science Department, University of Pennsylvania, Philadelphia, Pennsylvania, February 2004.
- Invited speaker, *The Computer as a guardian angel*, Electrical and Computer Engineering Department, Democritus University, Xanthi, Greece, June 2003.
- Invited speaker, *Thermal facial screening*, Oregon Health Sciences University, Beaverton, Oregon, February, 2002.
- Invited speaker, *Thermal facial screening*, University of Nevada at Reno, Reno, Nevada, December, 2001.
- Invited speaker, *Thermal facial screening*, Arizona State University, Tempe, Arizona, November, 2001.
- Invited speaker, *Deception detection*, (jointly with Dr. J. Levine), Defense Advanced Research Projects Agency (DARPA), Washington D.C., October 2001.
- Invited speaker, *Detection of Events for Threat Evaluation and Recognition: DETER*, Wright State University, Dayton, Ohio, August 2001.
- Invited speaker, *Thermal facial screening*, Mayo Graduate School of Medicine, Rochester, Minnesota, August 2001.
- Invited speaker, *Video-based monitoring and surveillance: From the laboratory to the commercial world*, Philips Research Laboratories, Briarcliff Manor, New York, March 2001.
- Invited speaker, *Detecting tumors, physiological state, human faces, and activity patterns*, Department of Electrical and Computer Engineering, San Diego State University, San Diego, California, December 2000.
- Invited speaker, *Automatic detection and counting of passengers in the High Occupancy Vehicle (HOV) lane*, Department of Computer Science, Georgetown University, Washington D.C., March 1999.
- Invited speaker, *Modeling of remotely sensed data for military and civilian applications*, Department of Electrical and Computer Engineering, San Diego State University, San Diego, California, January 1998.

Advisees

I currently supervise six PhD students and one Masters student. I have previously graduated another 17 PhD students and 5 Masters students. I have also supervised six postdoctoral researchers. All my doctoral and postodoctoral graduates are either successful academics or have senior positions in the high-tech industry - the alumni list follows.

Dinesh Majeti	Ph.D.	2018	Senior Engineer	Teradata
Ashik Khatri	Ph.D.	2018	Senior Engineer	Raytheon
Kamil Khanipov	Ph.D.	2018	Assistant Professor	University of Texas Medical Branch
Muhsin Zahid Ugur	Ph.D.	2017	Assistant Professor	University of Health Sciences - Turkey
Salah Taamneh	Ph.D.	2016	Assistant Professor	Hashemite University - Jordan
Karl Kwon	Ph.D.	2016	Data Visualization Engineer	AIG
Malcolm Dcosta	Ph.D.	2016	Assistant Professor	Elizabeth City State University
Avinash Wesley	Ph.D.	2015	Scientist	Halliburton
Ilyas Uyanik	Ph.D.	2014	Principal Engineer	Halliburton
Peggy Lidner	Postdoc	2012	Assistant Professor	University of Houston
Yan Zhou	Ph.D.	2011	Principal Engineer	FutureDial

Yuichi Fujiki	Ph.D.	2011	Senior Engineer	ShopBack
Mahos Bourlai	Postdoc	2009	Associate Professor	West Virginia University
Zhen Zhu	Ph.D.	2008	Solution Designer	Insperity
Pradeep Buddharaju	Ph.D	2007	Associate Professor	University of Houston - Downtown
Dvijesh Shastri	Ph.D.	2007	Associate Professor	University of Houston - Clear Lake
Jin Fei	Ph.D.	2007	Data Scientist	Honeywell
Jonathan Dowdall	Ph.D.	2007	Engineer	Google X
Nanfei Sun	Ph.D.	2006	Assistant Professor	University of Houston - Clear Lake
Arcangelo Merla	Postdoc	2004	Associate Professor	University of Chieti - Italy

Editorship/Chairmanship

2019–2020	**Editorial Board**, *Scientific Reports*
2008–2009	**Editorial Board**, *Image and Vision Computing*
2001–2006	**Editorial Board**, *Pattern Analysis and Applications*
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2017–	**Program Chair**, *17th IEEE International Symposium on Bioinformatics and Bioengineering (BIBE 2017)*
2011–	**Industrial Chair**, *6th International Conference on Functional Imaging and Modeling of the Heart*
2010–	**Industrial Chair**, *11th European Conference on Computer Vision (ECCV 2010)*
2009–	**Honorary Chair**, *IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS 2009)*
2008–	**Program Chair**, *IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS 2008)*
2007–	**Industrial Chair**, *11th IEEE International Conference on Computer Vision (ICCV 2007)*
2006–	**Program Chair**, *IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS 2006)*
2005–	**Honorary Chair**, *IEEE International Conference on Advanced Video and Signal based Surveillance (AVSS 2005)*
2003–	**Founding Chair**, *IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS 2003)*
2001–	**Program Chair**, *2nd IEEE International Symposium on Bioinformatics and Bioengineering (BIBE 2001)*

Review panels in funding agencies

2019|2017|2012-2010|2008|2004-2003	**Panelist**, *National Science Foundation (NSF)*
2019|2015-2013|2011	**Panelist**, *National Institutes of Health (NIH)*

Advisory boards

- Member of the IPSEN Foundation Board [https://www.fondation-ipsen.org] (2018–2022).
- Member of the Clair Labs Advisory Board [https://www.clairlabs.com] (2019–).

Current memberships

- Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
- Member, Association for Computing Machinery (ACM)

Consulting

- I have served as a consultant to Honeywell Inc. and FLIR Systems Inc.

Academic committees

2012–2020	**Member**, *University of Houston - Conflict of Interest Committee*
2016–2018	**Member**, *College of Natural Sciences and Mathematics - Promotion and Tenure Committee*
2015–2018	**Chair**, *Department of Computer Science - Promotion and Tenure Committee*
2015–2016	**Member**, *University of Houston - Scientific Misconduct Committee*
2013–2016	**Member**, *Department of Computer Science - Faculty Search Committee*
2010–2014	**Member**, *College of Natural Sciences and Mathematics - Promotion and Tenure Committee*
2009–2010	**Chair**, *Department of Computer Science - Faculty Search Committee*
2009–2010	**Member**, *Department of Computer Science - Graduate Studies Committee*
2006–2013	**Member**, *Department of Computer Science - Promotion and Tenure Committee*
2004–2006	**Chair**, *Department of Computer Science - Faculty Search Committee*
2003–2004	**Member**, *Department of Computer Science - Curriculum Committee*

Teaching

- I have established three innovative and highly successful courses in the Department of Computer Science at the University of Houston: Computational Physiology, Ubiquitous Computing, and Statistical Methods in Research [http://cpl.uh.edu/courses.php]. You can find public feedback from my class students at Rate My Professors: [https://www.ratemyprofessors.com/ShowRatings.jsp?tid=1736447]