



Interdisciplinary AI Research—Is There a Recipe for Success?



Artificial intelligence and machine learning (AI/ML) have recently become a hot research topic as well as use-case topic. Despite AI's first accomplishments dating back to the 1940's and decades of ups and downs, 2023 introduced AI as a mainstream technology for years to come.

AI is here. AI depends on approaches that learn from examples, on computational power, and on availability of data. AI is, and will be, a major research focus in the near future. Yet, at least for now, those having data are frequently not the same people who are educated in AI approaches and technology. Furthermore, domain experts typically do not immediately understand the AI experts.

The presentation will focus on interdisciplinary research approaches that allow these two main groups to efficiently collaborate, better understand each other, and consequently become productive in joint research. There is not a single recipe how to accomplish that; one approach used at the University of Iowa will be presented, sample projects from diverse application areas overviewed, and accomplishments and challenges discussed.

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Date: Monday, April 1st, 2024

Time: 2:00 – 3:00 pm, US Central Time

Location: **Blocker 220**

Online: **974 9688 4861 (ID) & 923446 (PWD)**

Faculty host: Xinyue Ye, ARCH

Biography

Milan Sonka received his Ph.D. degree in 1983 from the Czech Technical University in Prague, Czech Republic. He is Professor of Electrical & Computer Engineering, Professor of Ophthalmology & Visual Sciences, and Radiation Oncology, Co-director of the Iowa Institute for Biomedical Imaging, Director of the Iowa Initiative for Artificial Intelligence, IEEE Fellow, AIMBE Fellow, MICCAI Fellow, Fellow of the National Academy of Inventors, and Fulbright Specialist. His research interests include medical imaging and knowledge-based image analysis with an emphasis on cardiovascular, pulmonary, orthopedic, cancer, and ophthalmic image analysis. His data-driven analysis approaches typically benefit from the combination of artificial intelligence, machine learning, and deep learning data-driven approaches with more conventionally established strategies, combined in well-performing hybrid-level systems. He is the first author of 4 editions of “Image Processing, Analysis and Machine Vision” book (1993, 1998, 2008, 2014), co-editor of “Medical Image Analysis” book (2023), and co-author or co-editor of 20 other books/proceedings. He has published more than 220 journal papers and over 450 other publications. He is past Editor in Chief of the IEEE Transactions on Medical Imaging and past Associate Editor of the Medical Image Analysis journal.

You can also click this link to join the seminar <https://tamu.zoom.us/j/97496884861?pwd=Y2ZXRERyMU1EY1A2d2ZNS1JQTDIxdz09>.