Alex Leykin

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Education

- PhD in Computer Science, Indiana University **2007**
- MS in Computer Science, Indiana University **2002**
- MS in Applied Mathematics, Kharkiv Polytechnic Institute, Ukraine **2000**
- BS in Applied Mathematics, Kharkiv Polytechnic Institute, Ukraine **1998**

Research Interests

- Consumer Behavior Research
- Machine Learning and Artificial Intelligence Applications for Marketing Research
- Visual Attention and Visual Saliency
- Eye Tracking and Gaze Pattern Modeling
- Semantic Level Image/Video Analysis
- Visual People Tracking and Activity Recognition

Professional Experience

- **2010 - Present Research Associate, Customer Interface Lab, Kelley School of Business, Indiana University**
  Research focus: Facilitating consumer behavioral research in marketing. Developing innovative software solutions. Aiding student research and graduate level education.
- **2007-2010 Postdoctoral Research Fellow, Customer Interface Lab, Kelley School of Business, Indiana University**
  Research focus: Computer vision algorithms for collecting and analyzing marketing intelligence data in retail contexts. Visual tracking and activity recognition from videos applied to retail environments. Main project: Automated analysis of visual attention and goal oriented search strategies in human vision
- **2008 - Present Adjunct Research Scientist, Computer Science, SICE, Indiana University**
  Research focus: Collaborating with robotics faculty on obstacle detection for autonomous navigation system.

- **2005 Research Assistant, Kelley School of Business, Indiana University**
  Customer tracking and activity analysis in retail stores. Developing methods and software implementations for real-time human body tracking. Extracting statistical measures of individual customer and group activities to aid marketing analysis. Platform: C++, .NET, OpenCV

- **2003 Research Assistant, Informatics, IUPUI**
  Text readability analysis for augmented reality. Sampled readability measures through human-subject experiments. Trained an SVM classifier on human data for assessing the readability of text over the textured monochromatic backgrounds. Classifier operated on automatically extracted texture and contrast features. Platform: Matlab 7

- **2002-2004 Lecturer**, **Computer Science, SICE, Indiana University**
  Advanced programming concepts, object-oriented programming, networking, graphical interfaces

- **2001-2002 Research Assistant, AI Group, Dept. of CS, Indiana University**
  Machine vision, image processing algorithms, simulating human behavior to automatically differentiate photographs of real scenes from art. In-depth analysis of edge, color and texture properties resulted in an automated "conglomerate of neural networks" image classifier. Platform: Matlab 6.1

- **2001 Project Developer, Information In Place, Inc**
  Project Developer, Information In Place, Inc: Mixed reality project development. Worked on the driver to retrieve object coordinates from the database and to match them with the real coordinates provided by the GPS (Global Positioning System) system. Platform: Java and Java3D visualization package.

Programming Skills:

- Machine Learning/AI, Computer Vision: PyTorch, OpenCV, Matlab NN Toolbox
- Languages: Python, Java, C++, C#
- Web: JavaScript, Web Scraping

Professional Service

- Reviewer: Computer Vision and Image Understanding (Elsevier), Eurographics, Annual Conference of the European Association for Computer Graphics**,** IEEE Transactions on Intelligent Transportation Systems
- Program Committee: International Symposium on Visual Computing
- Workshop Organizer: British Machine Vision Conference

Selected Publications

- Chen, M., Burke, R. R., Hui, S. K., and Leykin, A. (2021). Understanding Lateral and Vertical Biases in Point-of-Purchase Product Considerations: An In-Store Ambulatory Eye-Tracking Study. *Journal of Marketing Research*, in press.
- Burke, R. R. and Leykin, A. (2014). Identifying the Drivers of Shopper Attention, Engagement, and Purchase. In Dhruv Grewal, Anne L. Roggeveen, and Jens Norfalt, (eds.), *Shopper Marketing and the Role of In-store Marketing, Review of Marketing Research, 11,* 147-187. Bingley, UK: Emerald Group Publishing Limited.
- Zhang, X., Li, S., Burke, R. R., and Leykin, A. (2014). An Examination of Social Influence on Shopper Behavior Using Video Tracking Data. *Journal of Marketing*, *78*(5), 24-41.
- Ran Y., Leykin A., and Hammoud R. (2009). Thermal-Visible Video Fusion for Moving Target Tracking and Pedestrian Motion Analysis and Classification. In R.I. Hammoud (Ed.) *Augmented Vision Perception in Infrared. Advances in Pattern Recognition*. London, UK: Springer.
- Cutzu, F., Hammoud, R., and Leykin, A. (2005). Distinguishing paintings from photographs. *Computer Vision and Image Understanding (CVIU), 100(*3), 249-273.
- Leykin, A., Cutzu, F., and Tuceryan, M. (2004). Using multiple views to resolve human body tracking ambiguities. British Machine Vision Conference (BMVC). London, UK: Kingston University.