BANQUET KEYNOTE TALK

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The state of modern computer vision

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Abstract

Computer vision has gone through major changes over the last seven years. The vision community can solve classification and regression problems with astonishing accuracy and relative ease, as long as enough data is available. Many very important practical problems, like object detection, can be wrangled into either a Classification or a regression problem. Furthermore, we have a spectacular grasp of the relations between 3D worlds and 2D images. I will review the main problems we can currently solve, describe very roughly how we solve them, and sketch out the domain of important unsolved problems.



Speaker Bio-Sketch: David Forsyth is currently Fulton-Watson-Copp chair in computer science at U. Illinois at Urbana-Champaign. He has published many papers on computer vision, computer graphics and machine learning. He has served as program co-chair and general co-chair for IEEE Computer Vision and Pattern Recognition on many occasions, and am a regular member of the program committee of all major international conferences on computer vision. He has served six years on the SIGGRAPH program committee, and he is a regular reviewer for that conference. He has received best paper awards at the International Conference on Computer Vision and at the European Conference on Computer Vision. He received an IEEE technical achievement award for 2005 for my research. He became an IEEE Fellow in 2009, and an ACM Fellow in 2014. His textbook, "Computer Vision: A Modern Approach" (joint with J. Ponce and published by Prentice Hall) is now widely adopted as a course text (adoptions

include MIT, U. Wisconsin-Madison, UIUC, Georgia Tech and U.C. Berkeley). A further textbook, "Probability and Statistics for Computer Science", has just appeared in print; yet another ("Applied Machine Learning") is about to go into production. He has served two terms as Editor in Chief, IEEE TPAMI. He serves on a number of scientific advisory boards, and he has a practice as an expert witness.