Human and Machine Intelligence Seminar

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Speaker: David A. Forsyth
Fulton Watson Copp Chair in Computer Science
Department of Computer Science
University of Illinois at Urbana-Champaign

Date: Monday, April 8th, 2019
Time: 2:15pm – 3:30pm
Location: Rotunda Dome
Title: The Materials Objects are Fashioned From

Abstract: Objects are made of materials, and even unfamiliar objects are made of familiar materials. But object recognition is popular and well-studied, and material recognition isn't. This is because it's hard to collect data in the form that works best for current recognition procedures — people don't articulate material names well. We have been investigating methods to represent materials that are learned from revealed preference data about fashion outfits. We can build visual representations that can (a) match fashion items well and (b) reveal the materials the items are made of. We have expanded this work to investigate style transfer methods - which methods work well, and why? Because this exposes what features people might use to decide what is a material. We have built simple material matchers, which can be used to segment and to colorize.

Bio: David Forsyth is currently a full professor at U. Illinois at Urbana-Champaign, where he has occupied the occupied the Fulton-Watson-Copp chair in Computer Science since 2014. Prior to UIUC, he was a full professor at UC Berkeley. David has published over 130 papers on computer vision, computer graphics and machine learning. David has received best paper awards at the International Conference on Computer Vision and at the European Conference on Computer Vision. David received a 2015 IEEE technical achievement award. He became an IEEE Fellow in 2009, and an ACM Fellow in 2014. His recent textbook, "Computer Vision: A Modern Approach" (joint with J. Ponce and published by Prentice Hall) is now widely adopted as a course text. David has also served as Editor in Chief for the IEEE Transactions on Pattern Analysis and Machine Intelligence. He was awarded a Doctor of Philosophy degree from the University of Oxford and Bachelor of Science and Master of Science degrees in Electrical Engineering from the University of the Witwatersrand, Johannesburg.

Seminar Organizers: Paul Humphreys (Dept. of Philosophy) and
Vicente Ordonez (Dept. of Computer Science) through the

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