

Computer Science Colloquium

Artificially Intelligent Serious Games

Jim Thomas

3C Institute

Thursday, April 10, 2014

3:30pm – 4:45pm

Petty Building, Room 303

Abstract: This talk will introduce growing field for the application of artificial intelligence techniques: serious games. Two different subfields of AI: automated planning and intelligent tutoring systems are converging on digital games as a platform for new research and applications. This talk specifically looks at how these trends are creating desirable new job opportunities for CS graduates with AI expertise. Warning: this talk includes unnecessarily detailed descriptions of partial-ordered causal link planning, arguably tangential digressions into game studies and underappreciated aspects of the history of computing, as well as a generally self-indulgent overemphasis on the presenter's own research record. On the plus side, he has been known to reward attentive audience members with candy.

Speaker Bio: Jim Thomas worked his way up to the third rung of the corporate ladder in software development and marketing at Nortel Networks in Research Triangle Park before deciding that academic research was what he really wanted to do when he grew up. Jim helped found a research-based company in Cary, NC and then began commuting to N.C. State University in pursuit of a Ph.D. in Computer Science. The National Science Foundation awarded him a generous Graduate Research Fellowship which helped him complete his thesis on applied DPOCL planning as a knowledge source for intelligent tutoring within exploratory virtual environments (a.k.a. games). He completed a post-Doc in 2012, also at N.C. State, working on a project that uses 3D photography to aid crime scene investigations (<http://iccrime.ncsu.edu/>). Subsequent work for SoarTech, Inc. based in Ann Arbor, Michigan, gave Jim rich exposure to the worlds of cognitive architectures (SOAR, ACT-R) as well as training and simulation for military applications. Coming full circle, Jim has since returned to the company he helped found (<http://www.3cisd.com/>) where he works with a staff of more than 70 people to deliver evidence-based programs for behavioral health as well as a variety of technological spin-offs.