

Seminar



Successful Approaches to Computer Science Teaching

Abstract. Problem solving skill is important in every industry, particularly in the software industry, as simply put, a software is an encoding of our solution to a problem. Yet, most computer science (CS) or software engineering (SE) courses do not focus on this important skill as there is no widely accepted formal way to teach problem solving. In this talk I will discuss some of the approaches to CS or SE teaching that allow incorporating problem solving with every topic taught in the course. I will present examples based on pedagogical approaches like discovery learning that I have used successfully for more than ten years both at undergraduate and graduate levels in my introductory programming as well as advanced courses. I will also discuss how these approaches mitigate the effect of students coming from various backgrounds with different levels of prerequisite knowledge, thus making them suitable for large size classes as well. Furthermore, I will discuss how these approaches encourage engagement and promote motivation and creativity.

Biography. Ajay Bansal is Assistant Professor in Ira A. Fulton Schools of Engineering at Arizona State University. His primary research interests include Knowledge Representation and Reasoning for AI, Logic Programming, Answer Set Programming and Machine Learning. His work on Coinductive Logic Programming won the Test of Time Award at Intl. Conference on Logic Programming (ICLP) in 2016. He has also worked in the area of Semantic Web services and was involved in the design and development of Universal Service-Semantics Description Language (USDL) that received the Best Paper award at the European Conference on Web Services (ECOWS 2005).

Dr. Bansal was recently awarded the 2019 [Teaching Excellence Award](#) by the Fulton Schools of Engineering at ASU, which is given to one faculty member across the school (with 20,000+ students and 500+ faculty). He has also received the 2018 and 2015 Best Teacher Award (Top 5%) in the Fulton Schools of Engineering and the 2013 Best Teacher Award in the Department of Engineering within the College of Technology and Innovation at ASU. He received a PhD in Computer Science from the University of Texas at Dallas. Prior to joining ASU, he was a visiting assistant professor at Georgetown University in Washington, D.C. He also worked in the industry for four years as a software engineer at SIEMENS India, Metallact Corp. and Tyler Technologies.



Dr. Ajay Bansal

Ira A. Fulton Schools of Engineering
Arizona State University

ajay.bansal@asu.edu
www.public.asu.edu/~abansa10/index.html

Friday November 22, 2019
Time: 2:00 - 2:50pm
Room: Bate 1009

Contact: Dr. Kamran Sartipi
Dept. of Computer Science, ECU
www.cs.ecu.edu/sartipi/CSseminar/