The Architecture of Decision-Making
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Abstract

Researchers in software architecture have long formulated architecture as an issue of relationships among technical elements. Garlan and Shaw, for example, formulated an influential model of software architecture in terms of computational components and connectors (i.e., channels through which components interact). Others have advocated multiple-view formulations, e.g., with separate views reflecting the decomposition of programs into classes, processes and threads, and of the allocation of processes and threads to resources such as CPU's. In this talk I will argue that there is some evidence that suggests that we should explore a somewhat different formulation: of architecture as an issue that is fundamentally about decision flexibility and constraint in design, including how constraints in some dimensions create the flexibility in others needed for effective attacks on complex design problems. The talk is based on joint work with Carliss Baldwin at the Harvard Business School, Bill Griswold at U.C. San Diego and with current and former students.

Biography

Kevin Sullivan received his undergraduate degree from Tufts University in 1987 and his MS and PhD in Computer Science and Engineering from the University of Washington in 1994. His PhD advisor was David Notkin. He is now Associate Professor and Virginia Engineering Foundation (VEF) Endowed Faculty Fellow in computer science at the University of Virginia, where he has worked since 1994. Kevin's research interests are in software-intensive systems (generally), and in software engineering and languages (more specifically). He recently served as associate editor for the Journal of Empirical Software Engineering and the ACM Transactions on Software Engineering & Methodology, and on the program and executive committees of conferences including the ACM SIGSOFT Symposium on the Foundations of Software Engineering (FSE), the International Conference on Software Engineering (ICSE), Aspect-Oriented Software Development (AOSD) and ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL).

Thursday, April 12, 2007 at 3:40pm
223 Atanasoff Hall
Refreshments will be served!