



UMass Lowell Computer Science Colloquium Announcement

Speaker: Dr. Zhanyong Wan
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Date: March 27, 2002

Time: 3:00pm - 4:00pm

Place: Olsen Hall 311
Refreshments are served at 2:30pm

Domain-specific languages: challenges and opportunities

Programming languages are key in producing reliable and maintainable software. *Domain-specific languages* are specially designed for particular problem domains, and are promising tools for improving both programming productivity and program quality.

At Yale, one domain-specific language we have developed is Functional Reactive Programming (FRP). Applications of FRP include animation, robotics, graphical user interfaces, theater lighting, and control systems. We have also designed variants of FRP for real-time systems and embedded systems. In these variants, we use a type system to guarantee upper-bound on program response time and space consumption. In the talk, I will present FRP, discuss the technical challenges we encountered in developing FRP, and conclude with my future work on domain-specific languages.
