Kathi Fisler: Personal Context

Research history in both Formal Software Verification and Computing Education

Co-director: Bootstrap Project
Integrated CS and Algebra education for 8th-9th grade;
large teacher PD effort

Teach large (250+) first-year courses with heterogeneous prior backgrounds

But graduated from a CS program with 10 majors
What to Personalize ...

• What work students do
  – keep everyone learning, from wherever they are

• What feedback students get
  – matters that they made progress relative to where they were, less that achieved common target

• My understanding of students’ mastery and needs
  – what do they seem to know?
  – what problem-solving process are they following?

Poster on outcome/competency grading
Power of Formal Methods lies in Comparing Two Artifacts

What are the interesting (semi)-formalizable artifacts in a (CS) pedagogic context?

• Test cases (from students or staff)
• Process by which a student tried a problem
  – and the process the same student used last week
• (Perceived) dependencies between topics
• oh, and yes ... code