Abstract:
Programming is a skill that is best learned actively. I will discuss several websites that I have developed with this aim: Computer Science Circles (Python), Websheets (Java), and a Java execution visualizer. While these are student-centric tools, the instructor's perspective is also important. What do instructors learn about their students from these tools? How can we maximally enable creativity and efficiency on the part of the educator? Along the way I'll discuss open-source software and correctional institutes.

Bio:
David Pritchard is a Lecturer in the Department of Computer Science at Princeton University. His main interests are combinatorics, linear programs, approximation algorithms, probabilistic methods, and computational methods. In 2010, he defended his Ph.D. in the Combinatorics and Optimization department at the University of Waterloo. My work was on approximation algorithms: the design of polynomial-time algorithms that find provably good approximate solutions to NP-hard problems. Pritchard has 21 publications in journals and conference proceedings; these publications span additional areas such as computational geometry, bioinformatics, and education.
David Pritchard received a B.S. in Mathematics and Computer Science and a M. Eng in Computer Science from MIT in 2005. He received a PhD from the University of Waterloo, Department of Combinatorics and Optimization in January 2010.