

# SE&T Colloquium Series-Winter 2016

Speaker	Dr. Il-Hyung Cho Department of Computer Science and Information Systems
Title	<b><i>Learning Programming through Play: With Python and Minecraft</i></b>
Abstract	<p>Traditionally, computer programming was considered to be a professional work, mostly done by people with a formal education and training. The biggest hurdle to overcome in programming for people without a formal training was understanding the syntax of the programming languages. The current computer programming languages had evolved from machine-level languages (composed of 0s and 1s) in 1940s to English-like languages in 1960s, but it is still hard to learn the syntax of a new programming language and problem solving skill at the same time. Technological improvements in the past decades, notably in hardware speed, user friendly OS and application software (including computer games and animation), and the Internet, have led to the wide spread use of computers by diverse demographic users. The notion of computer programming has also been changed over the years. Computer programming is no longer confined to solving scientific, engineering, and business problems. Many programming languages have been developed for non-professionals and become more intuitive and easy to use. For example, Scratch (developed in MIT, 2003) is a visual programming language for kids (as young as 10 to 12 years old). Rather than typing codes on the keyboard, Scratch uses blocks of commands to connect each other to solve problems.</p> <p>Minecraft is a computer game where users dig (mine) and build (craft) different kinds of 3D blocks within a large world of varying terrains and habitats to explore. It is one of the most widely played computer games among all ages in the world, and it motivates and encourages exploration and play. It also allows users to write simple programs to build structures and geometric shapes to create essentially their own worlds. Imagination is your own limit in Minecraft. Kids can learn programming while they are having fun in Minecraft. This talk demonstrates how Python can be used to teach programming while exploring the world of Minecraft.</p>
Date	Tuesday, March 15
Time	4:10-5:00pm
Place	Pioneer 240
	Refreshments will be served at 4:00pm.