

ACM Computer Science Curricula 2013 – System Development Fundamentals & Software Engineering

Algorithms and Design		Fundamental Programming Concepts									Fundamental Data Structures				Development Methods			Soft. Design
Algorithm Comparison	Problem Solving	Non-specific Programming Concepts	Syntax & Semantics	Variables & Primitive Data Types	Expressions & Assignments	Input & Output	Conditionals & Iteratives	Functions & Parameters	Recursion	Arrays	Heterogeneous Aggregates (e.g. structures)	String Processing	Abstract Data Types	Program Comprehension	Debugging Strategies	Documentation & Program Style	OO Design Paradigms	

Game

Children	Minecraft: Hero's Journey [2]																		
	Code Combat [3]																		
	ToonTalk [27]																		
	PlayLogo 3D [44]																		
	Software KIDS [49]																		
	Cquest [51]																		
	World of Variables [65]																		
High School	Unnamed RPG [12]																		
	May's Journey [24]																		
	Co.Co.I.A. [46]																		
	RoboBuilder [60]																		
University (no programming experience)	Super Markup Man [3]																		
	Human Resource Machine [5]																		
	Unnamed Maze [7]																		
	Unnamed Puzzle [15]																		
	Wu's Castle [20]																		
	BOTS [23]																		
	Pythia [26]																		
	Program Your Robot [28]																		
	Instruction Right Place Game [31]																		
	Leek Wars [32]																		
	Gidget [34]																		
	Train B&P [35]																		
	LightBot 2.0 [39]																		
	Robot ON! [40]																		
	Prog&Play [42]																		
	Cube Game [47]																		
	The Catacombs [48]																		
Project Orion [50]																			
No Bug's Snack Bar [57]																			
Bomberman Game [61]																			
Capital Tycoon [63]																			
University (programming experience)	Codingame [1]																		
	Code Fights [4]																		
	Saving Sera [8]																		
	Ruby Warrior [9]																		
	EleMental [13]																		
	Screeps [14]																		
	Resource Craft [25]																		
	Critical Mass [33]																		
	Unnamed Prototype [36]																		
	RoboCode [37]																		
	CMX [38]																		
	RoboBUG [41]																		
	Super Mario Collaborative [53]																		
	Code Hunt [54]																		
	Pex4Fun [55]																		
Soccercode [59]																			
Program Pacman [64]																			

LEGEND: PRIMARY FOCUS SECONDARY FOCUS