Human Computer Interaction (HCI) Track (DRAFT)

Track Description:

As the field of computer science has evolved, other subareas of CS have become part of the main CS curricula. Human-computer interaction is one such example. HCI studies all phenomena surrounding the design, evaluation, implementation and use of interactive systems. It is accepted today that computing products need to be easy to use; HCI is the subarea of CS that studies how to accomplish this. Virginia Tech has a world class HCI research program. The Center of Human-Computer Interaction is among the largest on campus and the graduate program in CS offers many HCI courses.

Why take this track?

This track prepares students for graduate work in HCI and for entry-level positions in software development for interactive products. Many undergraduate students who take HCI courses go on to pursue graduate degrees. We have had many students that pursue Masters and PhD in HCI at Georgia Tech, Carnegie Mellon, University of Michigan, and Virginia Tech, among other universities. Those working in industry often work in user interface design, usability evaluation, and other types of interactive programming (e.g., web development). Many of the companies in the CSRC value HCI skills and are among the largest supporters and innovators in HCI: IBM, Microsoft, Google, Apple, among others (see complete list at http://www.cs.vt.edu/csrc/members.html).

Associated Faculty:

Dr. Doug Bowman   Dr. Chris North
Dr. Yong Cao   Dr. Manuel A. Pérez-Quiñones
Dr. Denis Gracanin   Dr. Francis Quek
Mr. Steve Harrison   Dr. Deborah Tatar
Dr. Scott McCrickard

Junior Year

CS 3114	Data Structures and Algorithms	(3)___	
CS 2506	Intro to Computer Organization II	(3)___	
CS 3744	Intro GUI Programming and Graphics	(3)___	
Comm 2004	Public Speaking	(3)___	
Math 3134	Applied Combinatorics	(3)___	
Total		15	

CS 3724	Intro to Human Computer Interaction	(3)___	
CS 3214	Computer Systems	(3)___	
CS 3604	Professionalism in Computing	(3)___	
Stat 4705	Statistics for Engineers _or_	(3)___	
	Stat 4714 Probability & Statistics for EE		
Free Elective		(3)___	
Total		15	

Senior Year

CS 41X4	Theory Course	(3)___	
CS 4XXX	Track-specific elective (see below)*	(3)___	
CS 3304	Comparative Languages	(3)___	
Engl 3764	Technical Writing	(3)___	
CLE Elective		(3)	
Total		15	

CS 4944	Senior Seminar	(1)___	
CS 4784	HCI Capstone	(3)___	
CS 4XXX	CS Elective	(3)___	
CLE Elective		(3)___	
ISE 3614	Human Factors Engineering	(3)	
Total		13	

*The track-specific elective in Fall of the Senior year must be one of the following:
CS 4204 Computer Graphics
CS 4624 Multimedia/Hypertext
CS 4634 Design of information
CS 4XXX Gaming course (if 4204 is not a prerequisite)