Computer Science Concentration Areas

Please use this list as a guide for selecting upper-division Computer Science electives based on your potential interest in a given area.

Artificial Intelligence, Data Mining, Machine Learning
CS 343 Artificial Intelligence
CS 344M Autonomous Multi-Agent Systems
CS 371R Info Retrieval & Web Search
CS 376 Computer Vision
CS 378 Autonomous Vehicle
CS 378 Computational Brain
CS 378 Comp. Intelligence in Game Design
CS 378 Introduction to Data Mining

Graphics & Visualization, & Scientific Computing
CS 347 Data Management
CS 354 Computer Graphics
CS 378 High-Performance Computing

Networks & Security
CS 346 Cryptography
CS 347 Data Management
CS 356 Computer Networks
CS 361 Intro to Computer Security
CS 378 Advanced Computer Networks
CS 378 Info Assurance & Security
CS 378 Network Security & Privacy
CS 439 Principles of Computer Systems

Bioinformatics and Computational Biology
CS 378 Computational Evolution
CS 378 Intro to Computational Biology
CS 378 Algorithms for Bio-Informatics
CS 378 Fundamental Genomics

Entrepreneurship
CS 378 Interdisciplinary Entrepreneurship
CS 378 Mobile Computing

Programming Languages & Software Design
CS 345 Programming Languages
CS 371P Object-Oriented Programming
CS 373 Software Engineering - WR
CS 375 Compilers
CS 378 Introduction to Data Mining
CS 378 Software Design
CS 378 Software Development
CS 378 Mobile Computing

Systems & Architecture/Microprocessors & VLSI Design
CS 371D Distributed Computing
CS 378 High-Performance Computing
CS 378 Programming for Performance

Theory & Formal Methods
CS 337 Theory in Programming Practice
CS 341 Automata Theory
CS 346 Cryptography
CS 353 Theory of Computation
CS 378 Algorithms & Complexity
CS 378 Debugging & Verifying Programs
CS 378 Programming for Correctness
CS 378 Formal Model of Java Virtual Machine

Game Development
CS 371P Object-Oriented Programming
CS 373 Software Engineering
CS 378 Generic Programming & STL
CS 354 Computer Graphics
CS 378 Game Technology

CS Education
UTeach Courses