

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