

Computer Science



UNION UNIVERSITY ACADEMIC UPDATE

The department offers four plans of study: Computer Science major, Digital Media Studies major, Computer Science minor, and Computer Information Systems minor.

<http://www.uu.edu/academics/coas/mathcsc/>

Computer Science Major

Upon completion of the Computer Science major, the student will have an understanding of and an appreciation for the interrelation of the five main areas of study in Computer Science: elements and architecture, programming concepts and languages, algorithms, data structures, and computer theory. The major emphasizes the practical application of basic concepts from each; therefore, the graduate **will** be able to continue study in Computer Science at the graduate level, or enter the job market.

Digital Media Studies Major

The Digital Media Studies major is an interdisciplinary program joining Art, Communication Arts, and Computer Science. Its purpose is to produce a student aesthetically, theoretically, and technologically trained and capable of excellence in the relatively new area of the design, production, and implementation of digital communications media. Included are such areas as web page design, digital visual and aural communications strategies and theory, interactive media design, media programming, digital presentation techniques, and technological advances in digital communications.

Computer Science Minor

The Computer Science minor is intended for students interested primarily in pursuing a career in computer science or related field immediately upon graduation.

Computer Information Systems Minor

The Computer Information Systems minor will provide the student with a general understanding of analysis, design, and implementation of applications via third-and-fourth-generation programming languages and pre-written packages. This minor is intended for the student expecting to use computers in a job-supportive mode.

Faculty

Stephanie Edge, Associate Professor of Computer Science, teaches Survey of Microcomputing Applications, Computer Science: Introduction and Overview, Programming in Java, and Algorithms and Data Structures. Her areas of interests include: computer hardware, web development, and programming languages.

Dr. Jim Kirk, Associate Professor of Computer Science, teaches Digital Systems, Computer Architecture, Computer Repair and Maintenance, and Computer Graphics. His research interests center upon machine learning, particularly distributed artificial intelligence (neural networks) and genetic algorithms.

Dr. Haifei Li, Assistant Professor of Computer Science, teaches Survey of Microcomputing Applications, Database Management Systems, Computer Ethics, and Programming Languages. His research interests include electronic commerce, automated business negotiation, business process management, web services and enterprise computing.

Cam Tracy, Web Development Agent, teaches Web Building and Site Management, and Computer Mediated Communication. Research interests include database design and web application development.

Dr. G. Jan Wilms, Professor of Computer Science, Associate Dean of the College of Arts and Sciences and Computer Science Discipline Coordinator, teaches mostly upper-level classes including Operating Systems, Database, and Networking. His research interests are networking, operating systems, and digital media for the web.

Senior Seminar Presentations

<http://matcscserver.uu.edu/matcsc/math/student/index.html>

The Computer Science Seminar course provides two important opportunities for students. First, students are involved in directing the topics discussed in the seminar, thus enabling them to tie up loose ends and address perceived deficiencies in their computer science backgrounds. The seminar also involves a major project which immerses students in a real-world problem to which they must apply their skills and creativity.

A project is adopted only if it both addresses a real need and involves skills that students have not already acquired in their coursework at Union. Therefore, seminar students find themselves in the situation of the Computer Science graduate, who must often discover the means to produce results without the sort of supervision and structure given in much undergraduate coursework. There is an emphasis on servanthood in the seminar projects with preference given to those that support Christian ministry and missions.

Recent Student Seminar Presentations

David Criswell, Hypercube Display and Manipulation.

Justyn Hunter and Milan Zivkovic, Troubleshooting your Health: Automating a Nursing Process.

Clint Peery, Computerized Card Catalog for Oakfield Baptist Church.

Allen Smith, Letting Your Fingers Do Too Much Walking: The Distance Traveled While Typing (A program that compares quantitatively the Qwerty and Dvorak keyboards).

Justin Snyder, A Shopping Cart and Invoicing System for Foodservice Products.

Selected Graduate Biographies

Eddie Childers, Web Developer at Morgan Keegan, Memphis, TN. Works with ASP, VB, COM+, and SQL.

My CSC experience was hard work for rewarding results.

Brian Glass, FedEx, Collierville, TN. Works with a team developing applications and architecture for handheld scanners for international couriers. Voluntarily teaches various classes in Java to other employees.

One of the benefits that I received from the Computer Science program at Union is that the professors helped teach me how to continually learn, which is an essential skill in the technology workplace.

Mary DeVan Hammond, Corporate Systems IT, International Paper, Memphis, TN. Develops and supports applications using Visual Basic, Oracle, .NET and SQL server.

Brandy (Faughn) Hardee, Programmer Analyst, AutoZone, Memphis, TN. Writes applications in Unix with Informix database backend for the Warehouse Distribution Centers.

The main thing that I think sets the CSC department at Union apart from the rest is the faculty. I always felt like they genuinely cared and wanted the best for me.

Aaron Hardee, Union Planters Bank, Memphis, TN. Works as an Application Developer with the Web Services Team. Responsible for Internet Banking and developing internal web applications for departments.

Steven Krawczyk, Platforms and Integration Software Engineer, Scansoft, Boston, MA. Responsible for engineering middleware software allowing communication across Windows, Linux, Solaris, and AIX platforms.

Katie Miller, EDI Administrator, Pictsweet, Bells, TN. Supports EDI trading partners, CRP/VMI product support and implementation, EDI translator support, Customer Service applications, new E-Commerce initiatives, and EDI Communications. Responsible for in-house reports on AS400 - warehouse management system.

The Computer Science department at Union provided me with a great starting point for life after college that has allowed me to succeed both personally and professionally.

Allen Smith, Software Engineer, Electronics for Imaging, Vancouver, WA. Programmer for their Splash product, a Macintosh-based print server and color management system.

Collie Strain, System Analyst, Provident Music Group, Franklin, TN. Works with SQL Server, Visual Studio.Net, and Cognos. Manages Web Developers, updates and troubleshoots the sales force automation system.