The **Bachelor of Science** in

Computer Science

Become a computational expert.

Computer science applies the principles of mathematics, engineering and logic to multiple functions including algorithm formulation, software and hardware development, and artificial intelligence. It is the study of algorithmic processes, computational machines and computation itself. As a discipline, computer science spans a range of topics from theoretical studies of algorithms, computation and information to the practical issues of implementing computational systems in hardware and software.

The Bachelor of Science in Computer Science

The BS in Computer Science is designed for those interested in software and computer systems on the technical side. Graduates can find fulfilling careers in many related areas such as cybersecurity, networks, Internet programming, software and mobile apps development, data science, AI, graphics or they can pursue additional graduate studies in computer science or in a more specialized area. Some courses are available online, and the entire program can be completed in the evening.

Upon completion of the program, graduates will be able to apply logical reasoning, algorithmic and mathematical principles and computer science theory to understand and solve a wide variety of computational problems; analyze computing problems size, scope and input-output requirements; analyze, evaluate and compare alternative solutions to computing problems; compare multiple general-purpose programming languages and select and use the appropriate languages for specific applications; design, implement (code) and document solutions to computational problems; create software systems; implement Internet applications on client and server sides; work effectively in teams to design, implement and evaluate solutions; effectively communicate computer science concepts and solutions; and recognize and promote the professional, social, ethical and legal issues and responsibilities in the computing/software profession.

2+3 BS/MS Dual Degree Program

The Master of Science in Computer Science is also offered in the 2+3 program format. This unique 2+3 dual degree program provides a pathway for students to earn both a bachelor's and a master's degree in Computer Science with fewer total credit hours than would be required to complete each degree independently. Once all requirements have been met, students will be awarded both a BS and an MS and are able to enter the job market with a competitive edge.

UMSL | Arts & Sciences
University of Missouri–St. Louis

Transforming Lives

The Bachelor of Science in Computer Science at UMSL is earned through our College of Arts and Sciences, the academic core of the University of Missouri–St. Louis. Through academic programs offered on- and off- campus, traditional and nontraditional students gain knowledge, skills and intellectual leadership for a variety of career paths, advanced study and research in many academic disciplines.

Graduates are known for their professionalism on the job and their strong sense of civic responsibility. Students in our programs engage in creative and critical thinking, learn to analyze evidence, to appreciate patterns of complexity and to reflect on important issues that impact our daily lives. Students gain skill sets to prepare for a changing workplace that requires flexible, dynamic, and well-educated employees.

The Department of Computer Science offers exciting and high quality undergraduate and graduate degree programs and certificates. At the undergraduate level, we offer three degrees: Computer Science, Computing Technology and Cybersecurity. We also offer a minor in Computer Science and certificates in Artificial Intelligence, Computer Programming, Cybersecurity, Data Science, Internet and Web, Mobile Apps and Computing. Our programs are also designated as a National Center of Academic Excellence (CAE) in Cyber Defense Education by the National Security Agency and the Department of Homeland Security.

Serious education. Serious value.

The Bachelor of Science in Computer Science is designed to provide specialized knowledge, skills and training in a flexible format, with classes available in person, online and in a hybrid format. You'll learn from highly qualified educators and researchers who hold terminal degrees from some of the world's most prestigious academic institutions.

The University of Missouri–St. Louis provides the knowledge, resources, tools, skills and support students need to be successful in our programs. Our comprehensive student support services include workshops, tutoring and career services to help you develop skills and strategies to be successful in the classroom and beyond. UMSL welcomes transfer students and our transfer specialists will assist you with getting the most transfer credits possible. We're also committed to increasing access to higher education, which is why UMSL is consistently ranked number one in affordability in the St. Louis region.

Learn more at umsl.edu/cs

Career Opportunities

Computer Network Architect
Computer Programmer
Computer Support Specialist
Computer Systems Analyst
Database Administrator
Information Systems Analyst
Network & Systems Administrator
Software Developer
Web Developer

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351 Millennium Student Center
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314-516-5451
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The University of Missouri–St. Louis is the largest public research university located in Missouri's most populous and economically important region. UMSL provides high-quality, affordable education to one of the most diverse student bodies in the state. No university is better connected to the surrounding region than UMSL. Seventy-three percent of our graduates stay in St. Louis. The metropolitan region needs a workforce well-equipped with computer skills and UMSL is prepared to help you meet those needs. Choose the University of Missouri–St. Louis for computer science.

CHOOSE UMSL