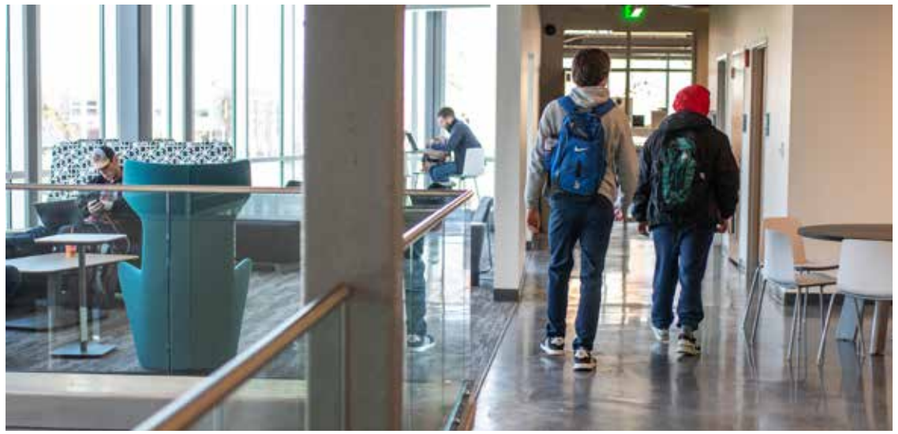
School of Engineering, Computing and Construction Management (SECCM) Labs

In the new state-of-the-art SECCM Labs building (opened spring 2020), students apply classroom theory and gain hands-on experience with equipment used in today's industry.

Computer Science students have access to:

- Collaborative workspaces
- Project rooms
- Design labs
- The Computer Science Software Experimentation Lab
- The BIM/Virtual Reality Lab
- The Advanced Technology and Innovation Lab



Roger Williams University

APPLICATION DEADLINES

Early Action, November 15
Regular Decision, February 1

Apply online using the Common Application at **you.rwu.edu/apply** or www.commonapp.org

www.rwu.edu

BACHELOR OF SCIENCE

COMPUTER SCIENCE

Computer Science majors learn to understand and evaluate the organization, design, and construction of hardware and software for computing. Students pursuing a Bachelor of Science in Computer Science use their strong mathematical backgrounds and knowledge of computing to design and build systems that keep organizations functioning and contributing to society.

+ **Are you a tech wiz with computers and able to fix technical problems when they arise?**
+ **Have you ever wondered how computer games or apps on your phone are built?**
+ **Do you have a particular interest within the Computer Science field such as artificial intelligence or human-computer interaction?**

STUDENT EXPERIENCE

Learn and Do More at RWU

With a focus on experiential learning at RWU, Computer Science majors:

- Build and execute code to design games, write web and phone apps, and make machines think for themselves.
- Learn how to diagnose problems and fix code to resolve issues.
- Work with outside clients to establish project requirements, and meet deadlines and expectations. Working with clients teaches our students how to communicate with non-technical professionals to achieve results.

ABET

Accredited by the Computing Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Computer Science Program Criteria

CAREER OUTLOOK

RWU **Computer Science** alumni are working as:

- Systems Programmers
- DevOps Engineers
- Software Engineers
- Computer Engineers

ALUMNI SPOTLIGHT

You'll be able to network with some amazing professors who may help you down your path. It's a rewarding experience to work with these professors on a fulfilling project that will help you broaden your knowledge of your field.

Misha Dubuc '21
Computer Science and Mathematics
Associate Data Engineer at OM1 Outcomes and Advanced Analytics in Boston, Mass.

Roger Williams University
www.rwu.edu

visit **rwu.edu/go/computer-science** for program information

Faculty

As experts in the field, our faculty provide students with the knowledge they need to enter the modern industry. With small class sizes, faculty get to know their students on academic, personal, and professional levels. Students receive one-on-one advising and guidance to find internships and jobs aligned with their career interests.

CURRICULUM

Our program allows you to tailor your education to your specific interests. You will gain a strong technical background in Computer Science and the communication and problem-solving skills you need to tackle any project. Our program is designed for all students regardless of their previous level of knowledge or experience.

During the first two years, you will learn the basics of Computer Science: from how a computer works, how it stores data, and the fundamental hardware parts of a computer, to how a programming language is written and how to analyze algorithms.

During your senior year, you will complete a year-long design project, building a significant software system for a real client. Past projects include:

- MotionFusion – a multi-year project developing an interactive presentation system using 3D cameras.
- ADAM-4 - modernizing a fluids mechanics lab to take advantage of better computing hardware and software.
- TrickyMaps - a game linking GPS, photographs, and paper maps to develop map reading skills and offer travel entertainment.
- NiCoMi - a system that helps evaluate the effectiveness of social-media based marketing campaigns.
- CPM Scheduling - a software system to help construction management students identify ways to reduce scheduling time for projects.
- Varro - a proof of concept to determine the possibility of remotely accessing and directing a smart phone camera.

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SPECIALIZATIONS

Beginning in your third year, you will have the flexibility to focus your education in a specific area by selecting a specialization. Students may choose from data science, digital systems, human-centered computing, intelligent and autonomous systems, or mathematics, or can consult with their faculty advisor to create a custom specialization.

Data Science Specialization

Data science looks at large and complex data. You'll learn how to understand, organize, and manipulate it to create solutions that benefit organizations. This specialization is best for students who enjoy analyzing or building algorithms, and exploring large and complex data sets.

Digital System Specialization

This specialization focuses on the hardware of a computer. Students will take a close look at circuits, learn how they are designed, and understand how they interact with software in devices like cell phones.

Human-Centered Computing Specialization

Humans and computers interact on a daily basis and human-centered computing focuses on how humans adapt and organize their lives around technology. This specialization allows students to better understand how to design, develop, and implement computing systems that support human activities.

Intelligent and Autonomous Systems Specialization

Devices like Alexa, Google Home, and Siri are all adapted by learning how computer systems can make decisions and behave autonomously. This specialization allows students to learn about artificial intelligence, and how to build programs and systems to perform certain tasks.

Mathematics Specialization

Data analytics uses a combination of Computer Science, mathematics, and statistics to gain valuable knowledge from data. The application of analytics can be used in a variety of ways for any industry. This specialization is for students who wish to pursue a double major in mathematics, or those who want to pursue studies or careers in the analytical side of computing.

Custom Specialization

Students interested in more than one focus of Computer Science, or those who want as broad an educational experience as possible, can work with their faculty advisor to design a custom specialization perfectly tailored to their interests.

Last Updated: July 2021