As a major in computer science at Millersville, you will be exposed to state-of-the-art equipment, theory and concepts. Our faculty of highly motivated and knowledgeable professors will guide you through the courses and prepare you to join one of the most exciting and innovative professions.

BACHELOR OF SCIENCE (B.S.)
There are two components of the B.S. degree in computer science. The first is the core, which all computer science majors must take. The second is an elective section in which each student selects three courses based on personal interest and career goals from among advanced topics in computer science. This allows students to tailor their coursework to their own needs, while ensuring that every student receives the same fundamental background in the canonical areas of computer science.

MINOR IN COMPUTER SCIENCE
Majors in other disciplines may take a minor in computer science.

MINOR IN DATA SCIENCE
Majors in other disciplines may take a minor in data science.

MINORS OF INTEREST TO COMPUTER SCIENCE
Since computer science impacts every discipline in some way, any minor can combine with computer science to create a career track. Here are some of the potential minors for computer science majors.

- Biology
- Economics
- Entrepreneurship
- Geospatial Applications
- Graphic Communications
- Management
- Mathematics
- Music
- Physics
- Studio Art

CAREERS
A computer science student has many possibilities for a career. Our graduates may pursue graduate degrees or directly enter careers in:

- Artificial Intelligence
- Bioinformatics
- Database Systems
- Data Science
- GIS Systems
- Computer Networks
- Graphics and Game Development
- Human-Computer Interaction
- Information Science and Business Applications
- Mobile Application Development
- Scientific Computing
- Cybersecurity
- Software Engineering
- System Engineering
- Web Development
FACULTY
At Millersville, your professors (not graduate assistants) teach every class. Each student is assigned a faculty advisor who acts as your mentor throughout your academic career, a responsibility our faculty takes very seriously. Faculty members are active learners, engaged in research projects that welcome and encourage student collaboration. Student/faculty research is available as an opportunity to enhance and personalize the computer science undergraduate education at Millersville.

FACILITIES
Linux Lab – One of the instructional labs, the Linux Lab, consists of 27 PCs that run Arch Linux. Installed software includes IDEs and editors such as Eclipse, Emacs, Vim and NetBeans. Supported languages include Java, C/C++, Python, Perl, Lisp, OCaml, Haskell, Prolog and D.

Mac Lab – One of the instructional labs, the Mac Lab, consists of 28 machines which run macOS. Installed software includes IDEs and editors such as XCode, Eclipse and Visual Studio Code. Supported languages include Java, C/C++, Swift, R and Python.

Research Lab – The research lab is directed by all faculty conducting student research. The lab contains several iMacs and PCs running Linux. All machines have high-end graphics cards to handle graphics, deep learning, data science and high performance computing research. The lab also contains a large table for group meetings as well as group-centric seating throughout the room. The lab is also equipped with two large displays for group collaboration and presentations.

CLUBS AND ACTIVITIES
Symposium Lectures – The department presents a symposium on interesting research topics and applications of computer science.

Computer Science Club – Computer science majors organize and run a club, holding several social, career and technical events each year.

Coding Club of Millersville University – The programming team successfully competes in state and national contests.

Cyber Defense Organization of Millersville University – The cyber defense team participates in the Collegiate Cyber Defense Competition and has qualified for nationals several times.

STUDENT/FACULTY RESEARCH
Student participation in research is considered an integral part of the Millersville programs and provides an opportunity for students to apply their problem-solving skills to open-ended, unstructured, “real world” problems. Millersville’s Department of Computer Science has received nearly $2 million in research funding from the National Science Foundation and other external funding agencies.

INTERNSHIPS
Many options are available for students to benefit from hands-on experience through cooperative education programs and internships. These opportunities provide valuable and practical on-the-job experience, as well as enable students to earn college credits and in most cases, a stipend or salary.

Companies with which Millersville computer science students have done internships:

12:34 MicroTechnologies
Aspire Ventures
Clark Associates
Clipper Digital/Clipper Magazine
DENTSPLY International
DMI, Inc.
Dell
H2os Inc.
Havis, Inc.
Hershey Foods
IDenticard Systems
JAARS Inc.
KSM Technology Partners, LLC
Lawrence Livermore National Laboratory
Listrak
M Associates
Meteor Tower Films, LLC
Millersville University Information Technologies
NIST (National Institute of Standards and Technology)
Northrop Grumman
Naval Surface Warfare Center, Philadelphia
Pacific Northwest National Laboratory
Seisan Consulting
Sharp Innovations
UPS
Voith
Williams Apothecary
Williams Forrest

"The faculty cared immensely about the quality of education that I was receiving. Millersville Computer Science [also] taught me how to quickly adapt to new technologies and ways of thinking by varying the tools used in different courses."

– Matthew Fossett, ’20

ACCREDITATION
The B.S. degree in computer science is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.