Computer Science

Gonzaga’s computer science students gain the skills to work with innovative technology, while expanding their capacities for critical thinking and ethical reflection in the Jesuit tradition.

THE PROGRAM
The Department of Computer Science at Gonzaga University offers students two different degree paths:

- Bachelor of Science (BS) in Computer Science degree offered through the School of Engineering and Applied Science
- Bachelor of Arts (BA) in Computer Science and Computational Thinking offered through the College of Arts and Sciences.

Both degrees are built on a foundation of courses in mathematics, computer programming, data structures and algorithms, software design and development, and software engineering. Both degrees also offer students a broad range of courses in advanced computer science topics, including:

- machine learning and artificial intelligence
- human-computer interaction
- computer networks
- database management systems
- data science
- computer security
- speech and natural language processing

All seniors participate in a large software engineering project, completed under the guidance of a faculty advisor and a project sponsor.

Computer Science majors can graduate with departmental honors if they fulfill all computer science degree requirements, achieve a grade point average of at least 3.5 in their CPSC courses, and write a senior thesis under the supervision of a CS faculty member.

RESEARCH OPPORTUNITIES
Undergraduates have the opportunity to assist faculty in their research. Many faculty have guided students through the process of presenting their results at regional, national, and international conferences.

Several students also have secured summer research funding through the National Science Foundation-sponsored Research Experience for Undergraduates program.
PROGRAM OPTIONS

Bachelor of Science: Focus on Technology: Students interested in the BS degree take a wide range of math, science, and computer science courses, including courses in computer organization, operating systems, language design and implementation, and theoretical issues in computer science.

Bachelor of Arts: Technology Support for Humanities or Sciences: Students interested in the BA degree select a Discipline for Computational Thinking (DCT) consisting of at least four courses in one of these disciplines: Art, Biology, Communication Studies, Economics, English, Environmental Studies, Philosophy, Sociology, or Theatre Arts.

Minor Available with Any Degree Program: Gonzaga University also offers a Minor in Computer Science, which is ideal for students considering a business, science, or humanities career. The minor consists of two required courses (Computer Science I and Computer Science II) and several computer science electives.

OUTCOMES

Graduates of computer science programs typically work as software engineers, computer scientists, and computational scientists, though many go on to careers in business, law, and healthcare.

Graduates also go on to fully-funded graduate work in computer science. When finished with their studies, they work as computer scientists in academic, government, and industrial research labs.

CS STUDENT LABS

The Department of Computer Science operates three labs in addition to multiple high-performance servers for use in coursework and software engineering projects.

The Computer Science Projects Lab consists of computers, project space, and meeting space for students interested in pursuing research and working on team projects within their courses.

The PC and Mac General Computing Labs are available to students 24/7. The Computer Science Department also provides an assortment of hardware for students to check out during the academic year for independent study projects.

A Virtual Reality Lab in the Herak Engineering Computing Center guides students interested in exploring AR/VR software applications.

New Facility Scheduled to Open Fall 2021

The Integrated Science and Engineering Facility will include additional Computer Science labs and collaboration space.

Faculty Contact

Shawn Bowers, Ph.D.
Computer Science Department Chair
bowers@gonzaga.edu

For more information: cs.gonzaga.edu