# **COMPUTER SCIENCE**

Bachelor of Arts



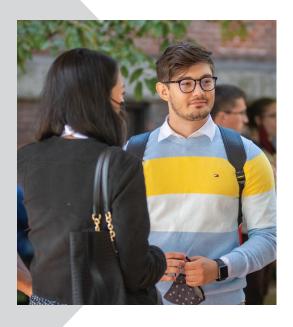
# **Introduction to the Major**

Our computer science program offers a strong foundation in computing and problem-solving within the close-knit, supportive environment of a liberal-arts community.

As a Computer Science major, you will learn and practice fundamental skills and principles both in and outside the classroom emerging fully equipped to thrive in a dynamic and ever-evolving technological landscape. Our students stand out for their exceptional research acumen, prowess in programming competitions and hackathons, and the ability to collaborate effectively in a team. With small class sizes, we prioritize personalized student-centered learning that helps every student reach their full potential.

#### **Highlights**

Explore a balanced mix of theoretical and applied computer science and be primed to pursue graduate study, research or a career in the tech industry. Our program adheres closely to the rigorous standards established in the Association for Computing Machinery/IEEE guideline.



"I saw computer science as an important tool to have in a generation where everything is digitized. Coding has also encouraged a new spectrum of creative thinking and problem solving."

- Tiffany Kayo, '19



## What can I do with my major?

#### **JOBS & EMPLOYERS**

Our alumni work as software engineers, systems and IT staff, research scientists, and program managers, with some holding positions at Google, Microsoft, and Amazon.

#### **GRADUATE PROGRAMS**

Alumni pursue graduate study in computer science, business and management, law, medicine, and education at top schools across the country.

Graduate schools attended by Clark alumni include Yale University, Johns Hopkins University, Brown University, University of Chicago, and more!

#### **Foundational Courses**

# CSCI 140 - Assembly Language and Computer Organization

Covers fundamentals of assembly language programming.

#### CSCI 160 - Algorithms

Emphasizes how the design of algorithms is supported by advanced data structures.

# CSCI 170 - Analysis of Programming Languages

Deals with the issues of the design and implementation of programming languages.

#### CSCI 180 - Automata Theory

Studies the abstract models of machines and languages and introduces the concept of computability.













### Year 1



#### Explore the CS Major

Take introductory level courses and get to know our faculty. Think about enrolling in requisite math courses.



## **Expand your interests**

Participate in events hosted by the Clark Center for Technology, Innovation, and Entrepreneurship (TIE) and other clubs, including coding challenges, resume workshops, and recruiter meet-and-greets. Participate in hackathons and meet computer science students from other schools.



#### Consider research or an internship

Meet with a faculty member to discuss research options during the summer. Reach out to local small businesses to see if there are ways that you can apply your skills and give back to the community.

## Year 3



#### Dive deeper

Enroll in electives that align with your interests - take courses in artificial intelligence, the internet of things, web and app development, operating systems, and more.



#### **Explore resources outside of Clark**

Go to talks and lectures off-campus, participate in hackathons and put your projects up on GitHub. Attend the Grace Hopper Conference (for female-identifying students) or the Tapia Celebration of Diversity in Computing Conference to enrich your learning and connect with recruiters.



### Go beyond the classroom

Join Clark clubs that match your interests and apply for an e-board position to get engaged. Design an independent project and seek support through the Steinbrecher Fellowship and other resources.

### Year 2



#### Dig in and define your interests

Learn and compare programming languages, explore computer architecture, and dive into automata theory. Consider the 4+1 MSCS program and start planning ahead.



#### Stay connected

Attend a career fair during fall or spring to discover new organizations and the types of roles they are hiring for. Reach out to the Career Connections Center (CCC) to learn about the resources available to you.



#### **Utilize your resourses**

Make use of Handshake, LinkedIn and your alumni network to explore new internship opportunities that best align with your work interests. Work in the department's researchlabs or Clark's Office of Information Technology Services.

## Year 4



#### Pull it together with your capstone

Fulfill the capstone requirement through an Honor's thesis, an interdisciplinary project, a directed study, or select advanced CS courses.



#### Finish strong

What steps do you need to take this year to finish strong? Continue tracking and meeting important personal and academic deadlines. Be sure to complete all your core courses and other requirements.



#### What's next?

Talk with faculty, your adviser, and the CCC about your upcoming job search or grad school applications. Identify faculty who know you well and will serve as references and/or write letters of recommendation.