

# MAJOR IN COMPUTER SCIENCE, HUMAN-CENTERED COMPUTING CONCENTRATION

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Human-centered computing (HCC) focuses on developing tools that improve the relationship between people and technology so that people can concentrate on the problem rather than the technology. The ultimate goal of HCC is to make the computer invisible.

Human-centered computing involves designing, developing, and deploying human-centric computer systems. In this concentration students will learn techniques for human-computer interaction using gestures, mobile devices, large surfaces, and virtual environments. Students will also learn how to design and conduct human-subject experiments and understand the role of HCC in developing human-centric artificial intelligence systems. The concentration provides rich interdisciplinary training in computer vision, machine learning, design and psychology.

## Learning Outcomes

Upon completing this program, students will be able to:

- Design interactive systems using state-of-the-art HCC techniques.
- Design and conduct human-subject experiments.
- Build complex 3D worlds for user interaction (e.g., virtual and augmented reality).
- Confidently pursue graduate studies or professional employment in HCC and computer science.

## Potential Occupations

In addition to the career opportunities open to all computer science graduates, the HCC concentration opens career paths that include:

User experience designer, virtual and augmented reality developer, and human-centric developer for intelligent systems.