



# HUMAN CENTERED DESIGN & ENGINEERING



**HUMAN CENTERED DESIGN ENGINEERS EMPLOY USER RESEARCH AND USER EXPERIENCE DESIGN TO BUILD SYSTEMS THAT IMPROVE HUMAN-TECHNOLOGY INTERACTION.**

## **WHAT DO HUMAN CENTERED DESIGN ENGINEERS DO?**

Human centered design engineers advance systems and technologies for people and communities to create accessible, sustainable, and prosperous futures. By employing a broad range of research methods steeped in math and science, HCDE students investigate the interaction of people with technology and technical development. Students graduate from HCDE with a strong foundation in designing user experiences and interfaces, creating information visualizations, conducting usability research, designing for the web, and building web technologies.

### **HCDE RESEARCH AREAS**

Influencing Behavior, Thinking, and Awareness

Design for Emergent Collaborations and Organizations

Low Resource and Underserved Populations

Material and Embodied Technologies

Data Science and Data Visualization

Learning in Professional and Technical Environments

## **WHAT PROBLEMS ARE HUMAN CENTERED DESIGN ENGINEERS TRYING TO SOLVE?**

Human centered design and engineering is broad – our research and developments contribute to nearly every industry. Some of the questions HCDE students and faculty are currently asking include:

- How can we support collaboration across domains with different ways of working to address large-scale challenges related to climate change, transportation, and more?
- How can we design communication technologies that are more resilient to the spread of misinformation and disinformation online?
- How can we mitigate bias in the development of new artificial intelligence technologies?
- How do we design mobile and wearable technologies that are accessible to the broadest range of users?



# WHERE DO HCDE ALUMNI WORK?

## Career paths

HCDE graduates work in many industries as designers and researchers who improve people's interactions with technology and with the world around them. Graduates find roles as user researchers, user experience (UX) designers, design researchers, experience strategists, and product managers.

## Industries

Roughly half of HCDE graduates work in the technology industry. Other common industries HCDE graduates work include education, healthcare, media, government, and non-profit sectors.

## Companies

Major companies that employ HCDE graduates include Adobe, Alaska Airlines, Amazon, Apple, AT&T, Boeing, Disney, Expedia, Hewlett-Packard, IBM Design, Intel, Meta, Microsoft, Netflix, Nike, Starbucks, Tableau, T-Mobile, and Wikimedia.

## SENIOR CAPSTONE DESIGN PROJECTS

The senior capstone project is the culmination of undergraduate coursework. Recent projects include:

- > Building Trust and Human Connection in an Online Brainstorming Space | Sponsor: Microsoft
- > Designing to Improve DEI Outcomes in the Hiring Process | Sponsor: Included
- > Leveraging XR Technologies for Childcare Worker Training | Sponsor: Greater Seattle Childcare Alliance
- > Exploring Diverse User Engagement in News Radio | Sponsor: KUOW Public Radio

## WHAT MAKES HCDE SPECIAL?

HCDE is a unique program, both in size and focus. Through small, project-based courses, HCDE students graduate with a solid portfolio of work to share with potential employers. Almost all undergraduates participate in departmental research groups and develop new skills while applying their coursework in innovative ways.



HCDE undergraduates receive opportunities to prepare for their careers through HCDE recruiting events, portfolio review workshops, alumni mentoring and networking events, and company information sessions.

## HOW CAN I LEARN MORE?

If you think HCDE is for you, there are many opportunities to explore more:

- Join a Directed Research Group and explore research projects in HCDE.
- Meet with a peer advisor.
- Join an HCDE-related student organization.
- Attend an HCDE information session or a public event like the UX Speaker Series or Capstone Showcase. Find opportunities at [hcde.uw.edu/calendar](https://hcde.uw.edu/calendar).

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