



From CS@VT to...

HCI/UX Engineer

Human Computer Interaction (HCI) and User Experience (UX) Engineers design the tech people actually want to use – from sleek apps to immersive VR. They blend coding and creativity to make technology intuitive, engaging, and fun.

Essential Foundations

A CS core is more than requirements – it makes great design possible.

These courses build technical and human-centered skills behind HCI/UX (see the CS Roadmap for a full list).

- ✦ **CS 2104 Problem Solving in CS**
Flex your creativity - problem solving is UX at its core
- ✦ **CS 2114 Software Design and Data Structures** - solid code = interfaces that actually work
- ✦ **CS 3214 Computer Systems**
know the limits so your designs don't break
- ✦ **CS 3604 Professionalism in Computing** - good UX means designing for everyone

Your Go-To Electives

- ▶ **CS 4104 Data & Algorithm Analysis**
the theory anchor you'll rely on
- ▶ **CS 3724 Human-Computer Interaction**
foundations of usability and design
- ▶ **CS 3744 GUI Programming and Graphics**
build intuitive visual interfaces
- ▶ **CS 4634 Design of Information**
organize and present information clearly
- ▶ **CS 4204 Computer Graphics**
visual tools for immersive experiences



Capstone (CS 4094)

Cap it off with a project that's all you. Your capstone team might build an app, VR experience, or interactive system. Projects often span multiple pathways, but your role can spotlight your HCI/UX expertise.