

COMPUTER ENGINEERING

Every year, computing systems become faster, smaller, and more capable.

As a computer engineering major, you'll be able to comprehend today's technologies and envision those of the future. You'll understand both the hardware and the software that drive sophisticated systems and be able to identify opportunities for future advancements.



“The ECE department works for the students. Professors had the door open for us always.”

Rina Binxhiu, Computer Engineering '18
Software Engineer, Dell

Making sensors more human

Electronic sensors can perceive or “see” everything around them, which generates too much information to be stored or efficiently processed.

Inna Partin-Vaisband and Amit Trivedi, UIC faculty members in electrical and computer engineering, are developing ways to mimic how humans operate: the way our senses and brain work together to control our attention, and efficiently focus on what matters. They and their collaborators will use multi-spectral sensing array hardware, processing algorithms, and control feedback to develop sensors that dynamically adapt signal processing to information being sensed according to real-time changes in the environment.



CREATIVITY IN ACTION

For our annual senior design showcase, the UIC Engineering Expo, computer engineering students have created:

- ▶ A “smart aquarium” with a mobile app interface that feeds fish and detects water quality
- ▶ A low-cost kit to retrofit existing industrial robots for safer interaction with their human colleagues
- ▶ A 3D radiation-mapping quadcopter that can identify contaminated areas that nuclear-facility workers need to avoid
- ▶ A device that can help an in-home assistive robot to identify trip hazards, such as a folded carpet

With a computer engineering degree, you might:



Create the next generation of supercomputers



Introduce new computing systems into objects we use every day



Devise ways to make smartphones even more powerful

