

Research Areas in Computer Science

Data Management and Machine Learning



Computers have changed the way the world produces, manages, processes and analyzes data. As the volume of data grows, what we do with the data and how we extract value from it has become a dominant theme in our society.

Information and System Security



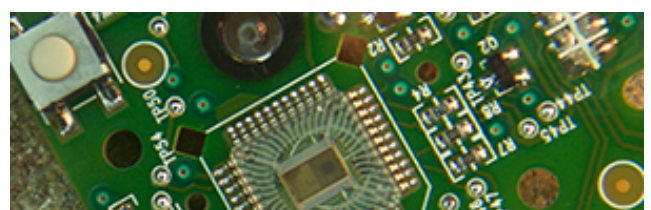
Information and System Security is a problem of fundamental importance for modern society as well as a scientific discipline with its own foundations and methods.

Networked Systems and Parallel Computing



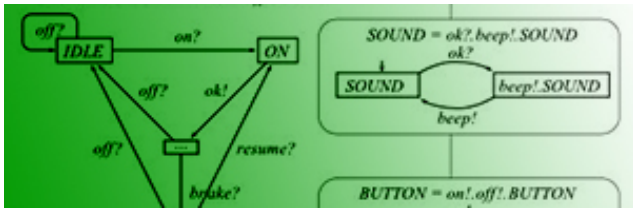
ETH Zurich has a long tradition of tackling long-term research problems in computer science by building and learning from complete computer systems.

Pervasive Computing and Cyberphysical Systems



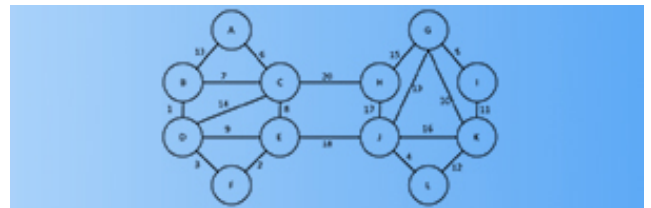
Computing pervades more sectors of the physical world as computer science impacts all of society.

Programming Languages and Software Engineering



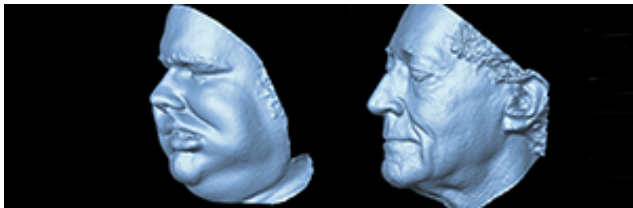
Research in this area ranges from theoretical underpinnings to practical tools supporting today's ambitious software projects. Topics of particular attention include: programming language design, software performance, and concurrency, as well as program analysis, synthesis, verification and testing.

Theory and Algorithms



Computer science has the dual nature of being an engineering science as well as a basic science (like physics), concerned with fundamental concepts including processes, computation, information and communication.

Visual Computing



The area of visual computing encompasses research activities in computer graphics, computer vision, geometry processing, human-computer interaction and visualization.