Software Engineering M33

116037910007 李旭

Software Engineering is a hot discipline nowadays and almost every academic fields need it. We shall outline the four major subfields of it that have emerged in these years: Computer System, Digital Art and Distributed Computing.

Computer System studies the underlying system. It can be divided into two areas: Operating System and Computer Architecture. Operating System is the study of how computer manages hardware. All applications run with the support of operating system and with the help of it, the upper level programmers can focus on their own job ignoring problems such as how to get data from disks or how to write them back. For Computer Architecture, hardware is studied such as the pipelining and parallelism in CPU, the bus design on the main board and the optimization for GPU.

Digital Art is the study of digital media. In technical usage, Computer Vision is the study of how computer recognize picture whereas Computer Graphic uses computer as a tool to design and generate arts. For example, face recognition is a part of Computer Vision and video game design is a part of Computer Graphic.

Distributed computing studies distributed system, a model in which components located on several connected computers. Systems using this model are usually large and widely used and this model can ensure data safety and efficiency.

Computer Vision

Computer Graphic

Digital Art

Distributed Computing

Computer Architecture

Operating System

Computer System

Software Engineering