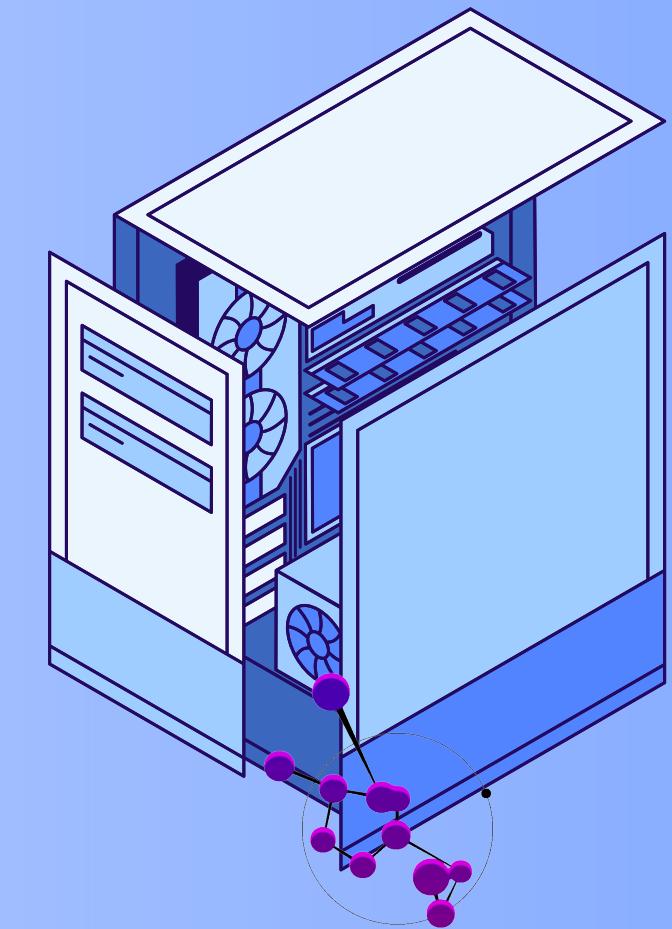
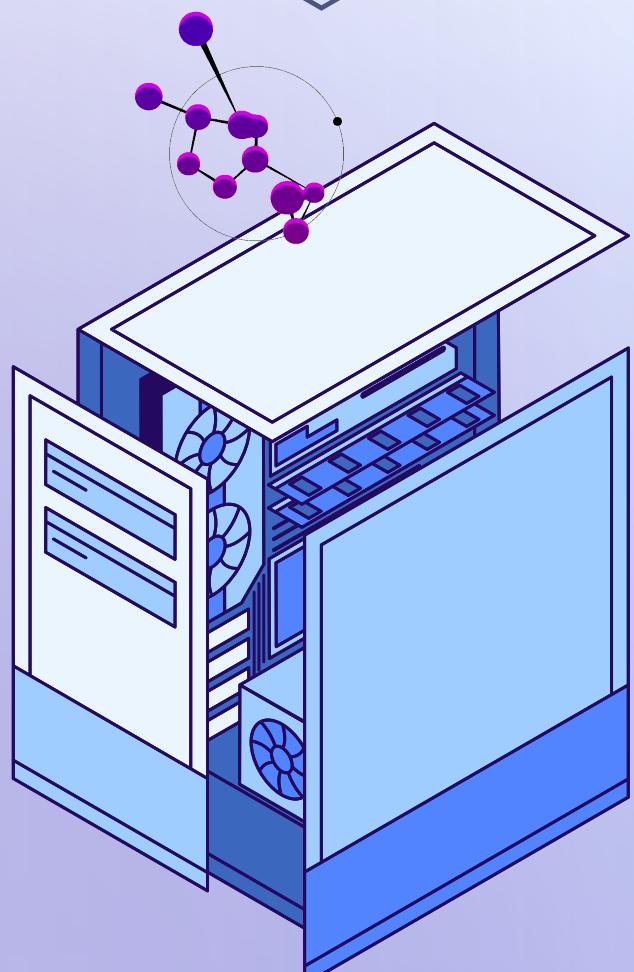


COMPUTER SCIENCE



DEFINITION AND SCOPE

Computer science (CS) is the study of computers and algorithmic processes, including their principles, their hardware and software designs, their applications, their uses for processing information and their impact on society.



WHAT IS COMPUTER SCIENCE AS A DISCIPLINE?



- It is the systematic study of algorithmic processes
- The discipline of computer science includes the study of algorithms and data structures, computer and network design, modeling data and information processes, and artificial intelligence.
- Encompasses far more than programming—for example, hardware design, designing operating system layers, structuring a database for a specific application, are all part of the discipline, but are not programming.
- The continued rapid development of computer science will require an expansion of the science base and an influx of talented new researchers.
- Computer science develops students computational and critical thinking skills and show them how to create, not simply use, new technologies.

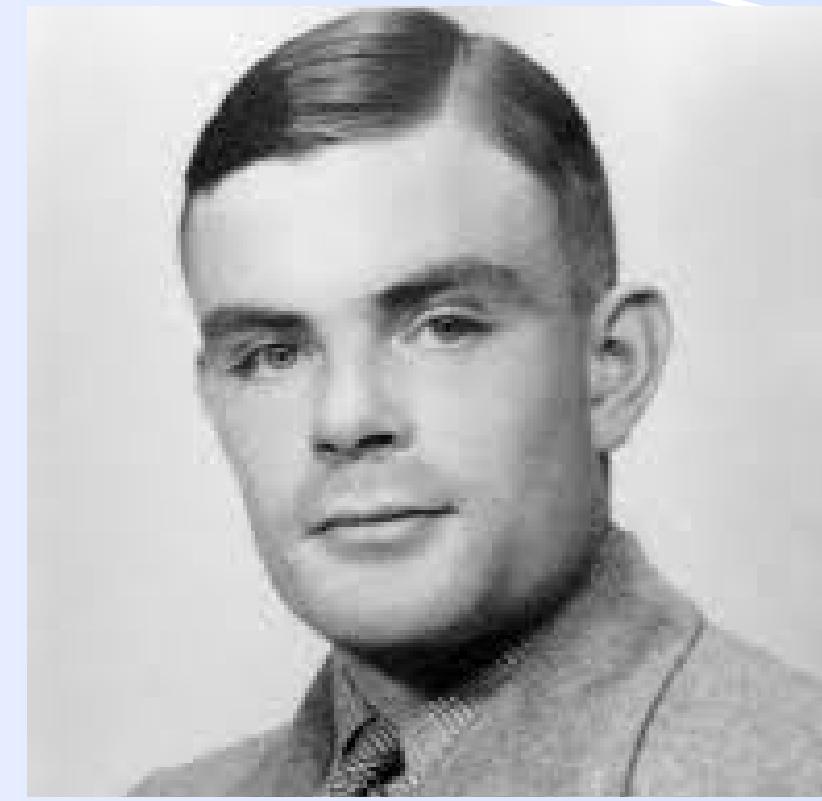


MAJOR CONTRIBUTORS

ALAN MATHISON TURING

(June 23, 1912 – June 7, 1954)

- Known as the father of modern computer science
- Was famous for his work developing the first modern computers, decoding the encryption of German Enigma machines during the second world war, and detailing a procedure known as the Turing Test, forming the basis for artificial intelligence.



KURT FRIEDRICH DODEL

(April 28, 1906 – January 14, 1978)

- produced his famous "Incompleteness Theorems."
- His fundamental results showed that in any consistent axiomatic mathematical system there are propositions that cannot be proved or disproved within the system and that the consistency of the axioms themselves cannot be proved.



VANNEVAR BUSH

(March 11, 1890 – June 28, 1984)

- An American electrical engineer and administrator who developed the Differential Analyzer and oversaw government mobilization of scientific research during World War II.
- Between 1927 and 1943 Bush developed a series of electromechanical analog computers which greatly facilitated the solution of complex mathematical problems.



LADY ADA BYRON LOVELACE

(December 10, 1815 – November 27, 1852)

- is considered the first computer programmer.
- was an English mathematician, an associate of Charles Babbage, for whose prototype of a digital computer she created a program.

HOWARD HATHAWAY AIKEN

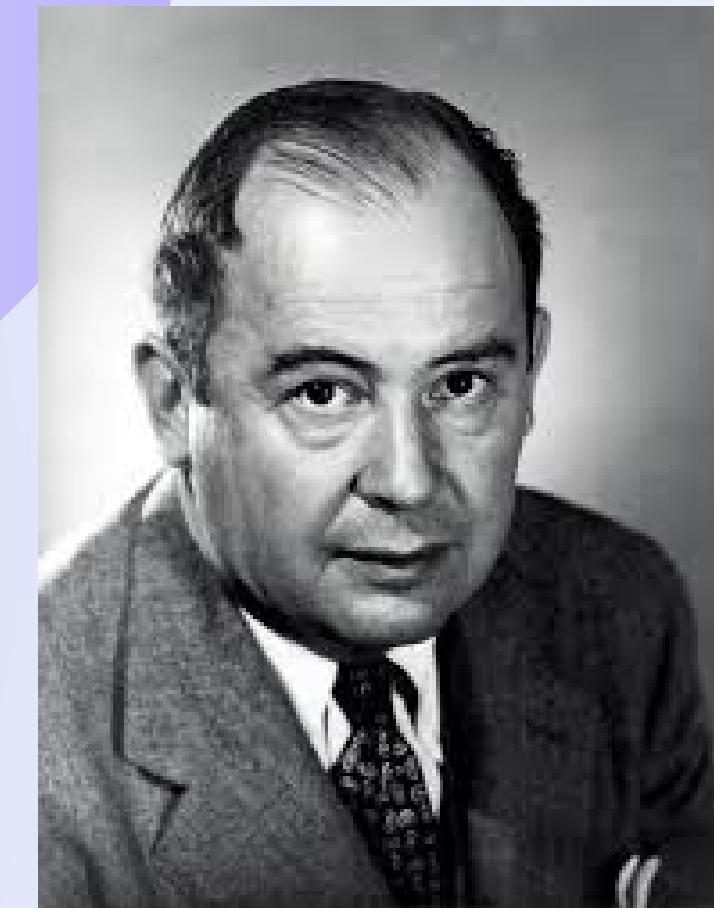
(March 9, 1900 – March 14, 1973)

- Was a major figure of the early digital era.
- A mathematician who invented the he IBM Automatic Sequence Controlled Calculator or Harvard Mark I, the forerunner of the modern electronic digital computer.



JOHN VON NEUMANN

(December 28, 1903 – Febuary 8, 1957)



- the scientific genius who pioneered the modern computer, game theory, nuclear deterrence, and more.
- was one of the conceptual inventors of the stored-program digital computer.

5 COMPUTING DISCIPLINE MAJORS



1

COMPUTER
ENGINEERING



2

COMPUTER
SCIENCE



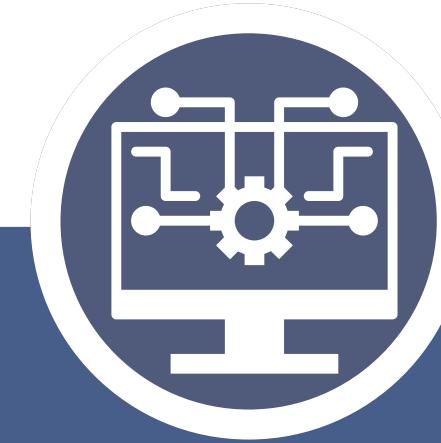
3

INFORMATION
TECHNOLOGY



4

INFORMATION
SYSTEM



5

SOFTWARE
ENGINEER

COMPUTER ENGINEERING

Study the design of digital hardware and software systems including communications systems, computers and devices that contain computers. For them, programming is focused on digital devices and their interfaces with users and other devices. An important area within computing engineering is the development of embedded systems.



CE

Organizational Issues & Information Systems

Application Technologies

Software Methods and Technologies

Systems Infrastructure

Computer Hardware and Architecture

Theory Principles Innovation

DEVELOPMENT

More Theoretical

More Applied

Application Deployment Configuration

COMPUTER SCIENCE

Computational systems theory and practical aspects, such as algorithms, programming, and software development, spans the range from theory through programming to cutting-edge development of computing solutions. Computer science offers a foundation that permits graduates to adapt to new technologies and new ideas.



CS

Organizational Issues
& Information Systems

Application
Technologies

Software Methods
and Technologies

Systems
Infrastructure

Computer Hardware
and Architecture

Theory
Principles
Innovation

DEVELOPMENT

More Theoretical

Application
Deployment
Configuration

More Applied

INFORMATION TECHNOLOGY

A label that has two meanings. In common usage, the term "information technology" is often used to refer to all of computing. Possess the right combination of knowledge, practical implementation and management of computer systems and networks.



IT

Organizational Issues & Information Systems

Application Technologies

Software Methods and Technologies

Systems Infrastructure

Computer Hardware and Architecture

Theory
Principles
Innovation

DEVELOPMENT

More Theoretical

Application Deployment Configuration

More Applied

INFORMATION SYSTEM

Is concerned with the information that computer systems can provide to aid a company, non-profit or governmental organization in defining and achieving its goals. It is also concerned with the processes that an enterprise can implement and improve using information technology



IS

Organizational Issues & Information Systems

Application Technologies

Software Methods and Technologies

Systems Infrastructure

Computer Hardware and Architecture

Theory Principles Innovation

DEVELOPMENT

More Theoretical

Application Deployment Configuration

More Applied

SOFTWARE ENGINEER

is concerned with developing and maintaining software systems that behave reliably and efficiently, are affordable to develop and maintain, and satisfy all the requirements that customers have defined for them. It is important because of the impact of large, expensive software systems and the role of software in safety-critical applications. It integrates significant mathematics, computer science and practices whose origins are in engineering.



SE

Organizational Issues
& Information Systems

Application
Technologies

Software Methods
and Technologies

Systems
Infrastructure

Computer Hardware
and Architecture

Theory
Principles
Innovation

DEVELOPMENT

More Theoretical

Application
Deployment
Configuration

More Applied



ANALYSIS

The creation and testing of software and software systems is the primary focus of computer science. Such as working with mathematical models, data security and analysis, algorithms, and computational theory are all part of it. The computational principles that form the basis of all software are defined by computer scientists.

Based on my understanding of this topic, computer science as a discipline is a discipline that focuses more on computer research, theoretical development, and practical applications than it does on building or maintaining computers. The discipline driving this revolution, known as computer science, is relatively new and has advanced quickly since its inception at the close of the 1940s. Even though computer science is used practically everywhere these days, a vast amount of diverse scientific research is being done in the background. The field itself is broad and includes engineering, theoretical research, and experimental techniques. Computer science also develops students problem solving and critical thinking skills, showing them to create new technologies.

ANALYSIS

As for the 5 computing disciplines and majors, although all five of them are in the tech industry and may seem the same but actually they are not that far off from each other, they have their similarities but are very different at the same time. First, is the Computer Engineering it embodies the science and technology of designing, building and maintaining of software and hardware components. Computer Science on the other hand focuses on theories of the computers and computing, such as algorithms, operating systems and programming. Software Engineer focuses on practical applications, processes, and techniques for building and maintaining software systems. Next, Information Technology and Information System. The difference between these two is that information technology is the planning and execution of data or information inside an information system. And Information System is typically in businesses, an organizational system designed to collect, process, store, and distribute information.

A glimpse in my life!

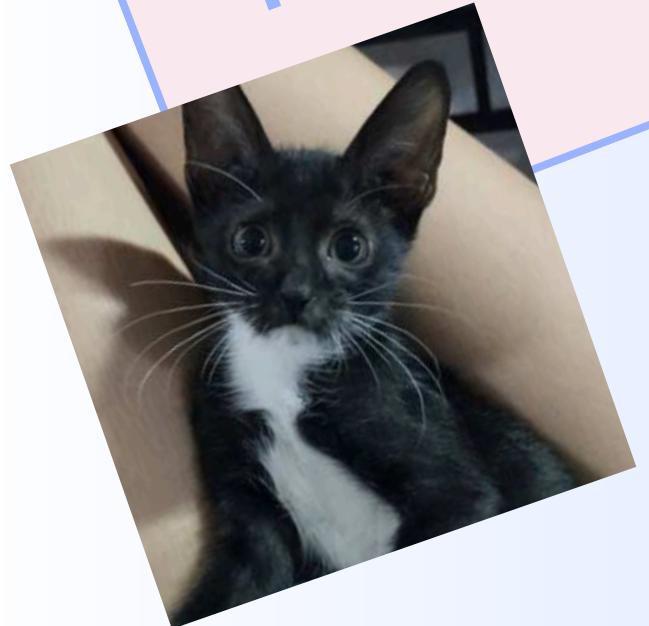
GET TO
KNOW ME

Virna Zeth Arias





I am a cat person.



MY NAME IS

VIRNA

I am the youngest of three siblings! Fun fact I am socially awkward but friendly at the same time:D

My favorite place in the school is the LRC because I can do resume doing assignments there or just sleep



My favorite color is Purple.

W H A T S T U D Y

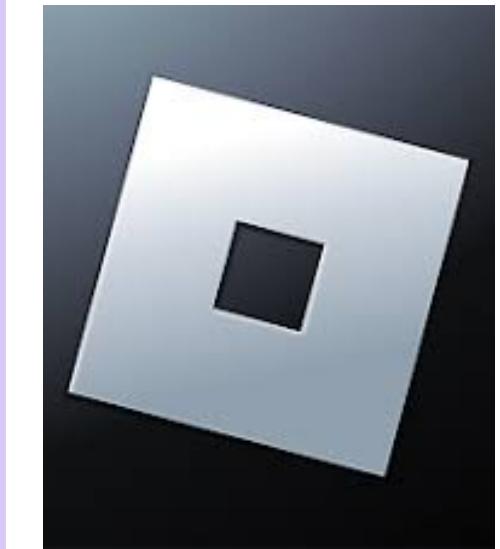
I have always been intrigued about technology and how it has always been evolving as years passed by. One of the important factors that made me pursue this is because it can help me develop my problem-solving and critical thinking skills.



HOBIES AND INTERESTS



Playing
Badminton



Playing
videogames



Eating
&
Sleeping



Drawing
&
Listening
to music



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THANK
YOU!

