Portfolio #1

COMPUTER SCIENCE

AS A DISCIPLINE

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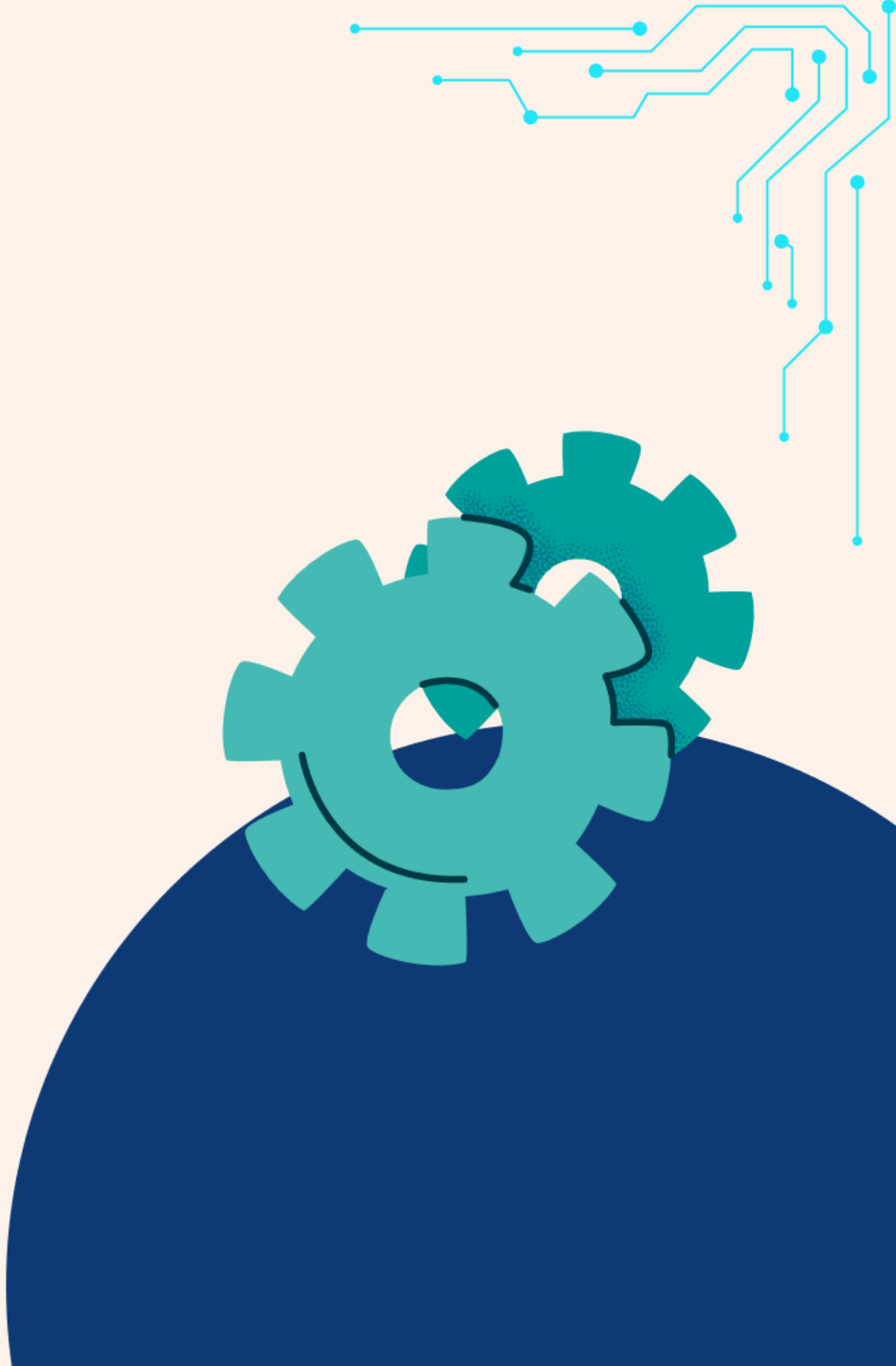


COMPUTER SCIENCE

- the discipline was born in the 1940s
- is the body of knowledge concerned with computers and computations

COMPUTING

- is the study of algorithms
- the fundamental question of computing is "What can be (*efficiently*) automated?

4
basic skills

IN COMPUTER SCIENCE

0 Algorithmic Thinking

1 Representation

2 Programming

3 Design

ALGORITHMIC THINKING

- an interpretation of the world in which a person formulates actions in terms of step-by-step procedures

REPRESENTATION

- addresses the way in which data are stored so that questions about them can be answered efficiently

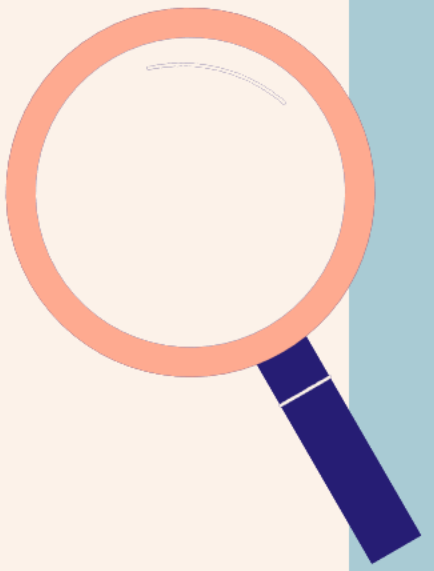
PROGRAMMING

- takes algorithmic thinking and representations and embodies them in software that will cause a machine to perform a certain way

DESIGN

- connects the three other skills to the concerns of people- the practical considerations

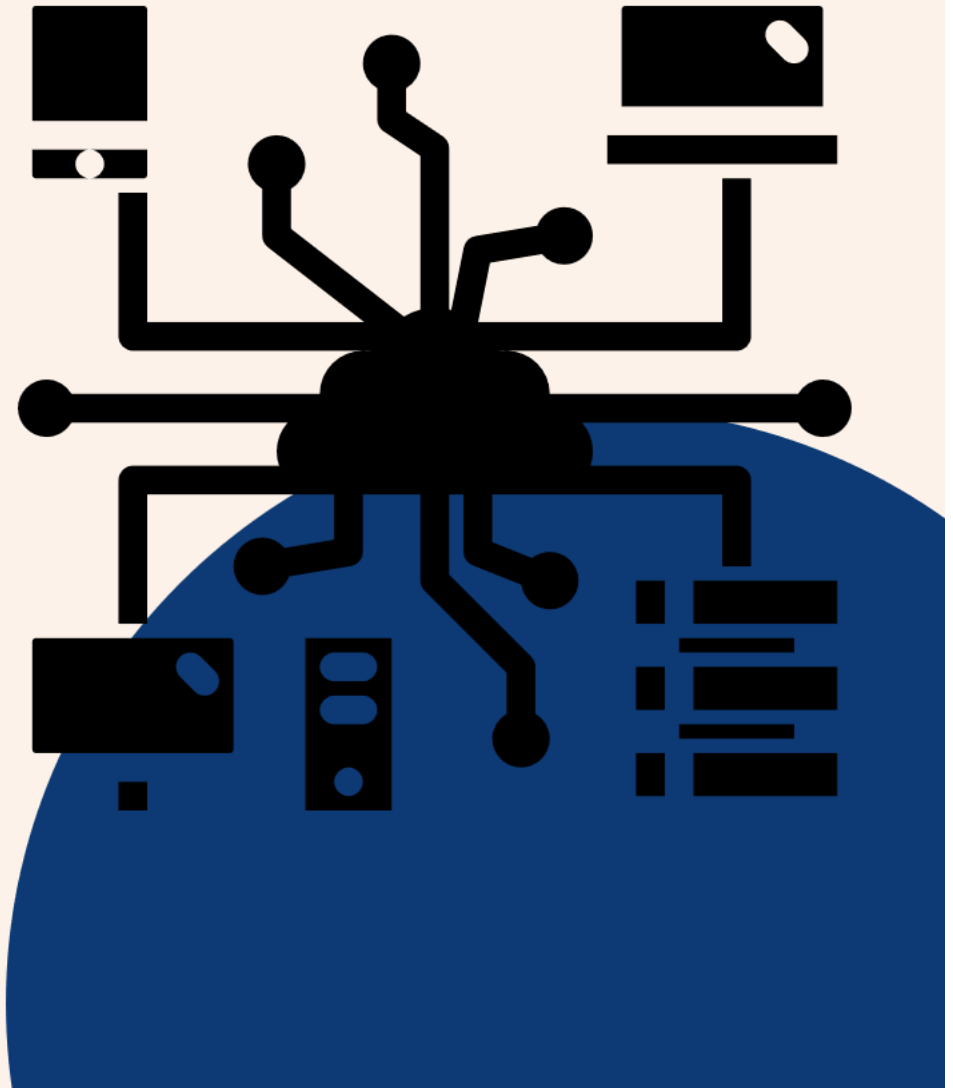
Relationships with other Disciplines



a wide range of disciplines need high-speed computations, specialized models, and data analyses for their processes, like:

- LIBRARY SCIENCE | text archives, digital libraries, storage & retrieval systems
- ECONOMICS | forecasting economic conditions and trends
- MEDICINE AND BIOLOGY | imaging methods and diagnostic tools
- FORENSICS | large databases of forensic data and evidence
- LINGUISTICS | speech recognition, language translation

5 COMPUTING DISCIPLINES AND MAJORS



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Computer Engineering

concerned with the design and construction of computers and computer-based systems

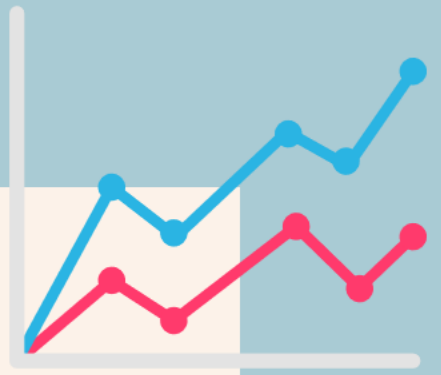
curriculum focus: theories, principles, and practices of traditional electrical engineering and application of these practices in designing computers

1

Computer Science

spans a wide range, from theoretical and algorithmic foundations to cutting-edge developments

design and implementation of software



2

Information Systems

focuses on integrating information technology solutions into a business' processes to meet their information needs

uses information technology in a business context

3

Information Technology

focuses on meeting the needs of users within an organizational and societal context through the creation and application of computing technologies

the course prepares students to meet the technology needs of business, government, healthcare, schools, and more organizations

4

Software Engineering

the discipline of developing and maintaining software systems that behave reliably and efficiently

seeks to integrate the principles of mathematics and computer science with engineering practices

Reaction

Computing is an amazingly broad spectrum of academic disciplines. As a student, you may choose from many specializations that are offered. The factor that will affect your decision is your desired niche; do you want to delve into the hardware of computers or to create its software? Do you want to learn about the theoretical concepts of computing or do you want to apply these concepts and just create a program? With multiple computing disciplines, there are distinctions to them, and the more you understand computing, the clearer your desired niche will be. Even within it, there are deeper distinctions; maybe you want to develop operating systems, web-based programs, mobile applications, databases, video games, or maybe you want to go into networking, or apply your knowledge to help growing businesses. The list cannot be exhausted. The greatest thing about computing is that, you can find a place where your expertise is needed *anywhere*. Every business and organization needs a team of professionals in the field of computing.

I was introduced to web development in high school. It was then that I learned basic HTML, CSS, and Javascript. After I realized the capabilities that they had, my mind went a hundred miles an hour, thinking about all the possibilities and potential things I could create from scratch, purely from my own vision. That is when I knew I wanted to learn more about technology and creating things in general. After experimenting and building simple webpages, I grew to love the problem-solving aspect of coding. It is a wonderful feeling when you have an idea, think about the practicality of your idea, design it in your head, then look for an efficient way to bring this idea to life. Programming just opened multiple doors for me, giving me the freedom to create what I want, when I want, and the opportunity to put my energy into making programs that could help people all around the world.

About Me

My name is Lauren Julia
I'm from Mandaue City, Cebu

I grew an interest in computer-related things when we learned about web development in high school, which led me to self-learn the basics of programming.

I chose IT as my program because, out of all my hobbies, programming is something I truly want to excel at.

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thank you