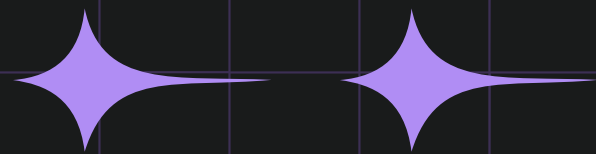
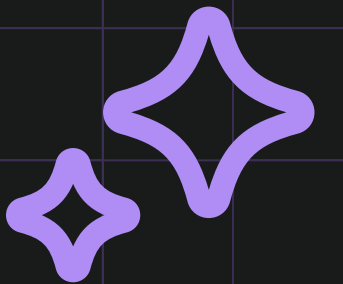
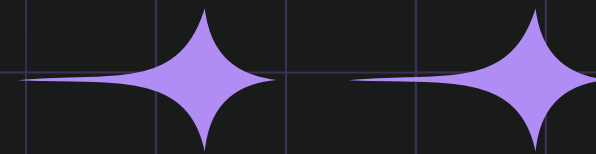


COMPUTER SCIENCE: DISCIPLINES & MAJORS



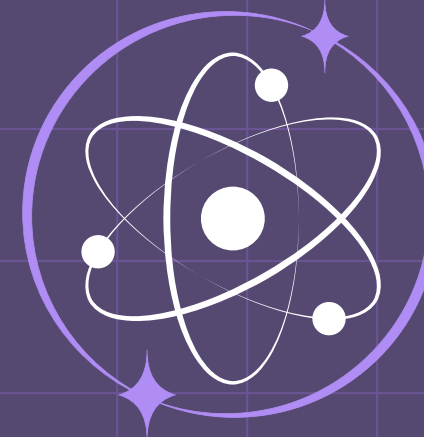
CIS 1102N PORTFOLIO #1



COMPUTER SCIENCE...

The study of computation, information, and automation that spans theoretical disciplines like algorithms, theory of computation, and information theory to applied disciplines including hardware and software design.

It is considered part of the broader discipline of computing, which includes computer engineering, information systems, information technology, and software engineering



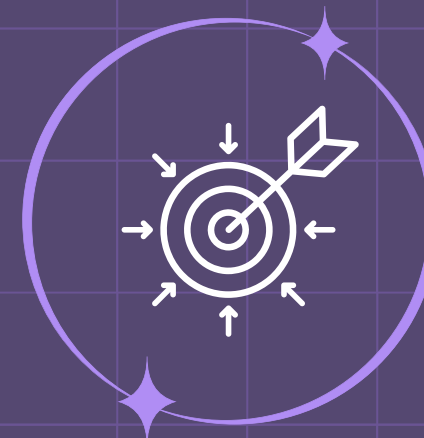
Core Areas

Includes algorithms, theory of computation, information theory, computer architecture, and software engineering.



Specializations

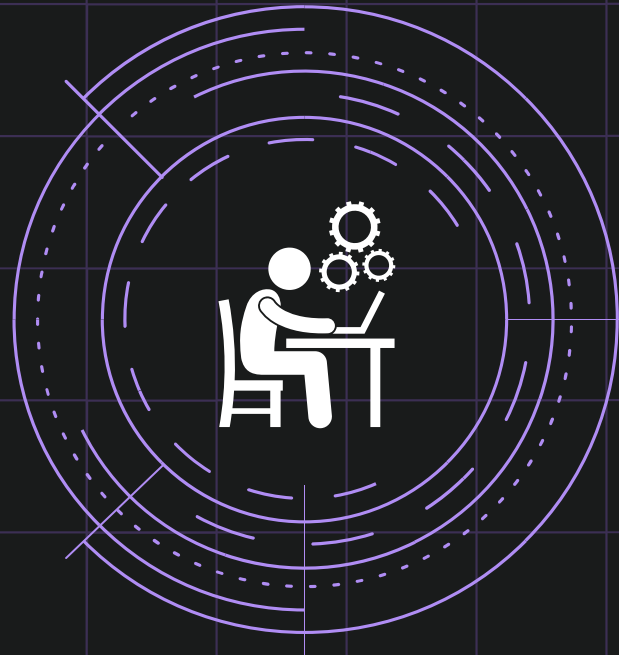
Covers areas like artificial intelligence, machine learning, computer graphics, computational geometry, cybersecurity, and more.



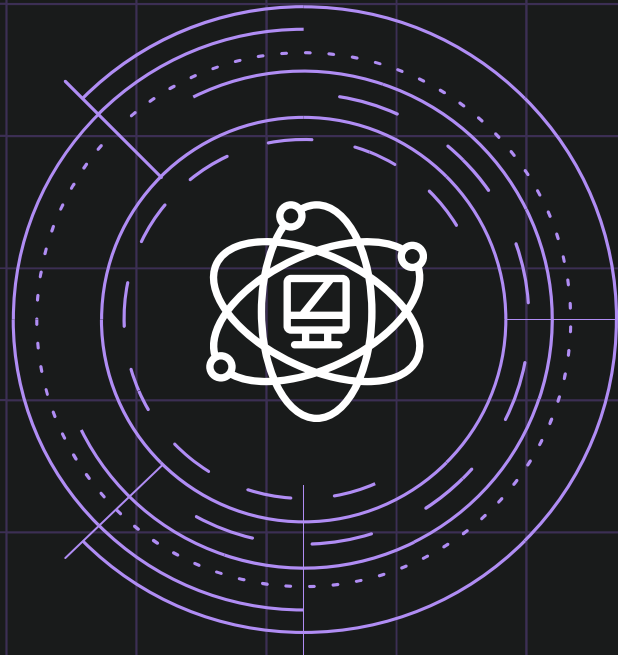
Fundamental Concern

Determining what can and cannot be automated.

COMPUTING MAJORS



**Computer
Engineer**



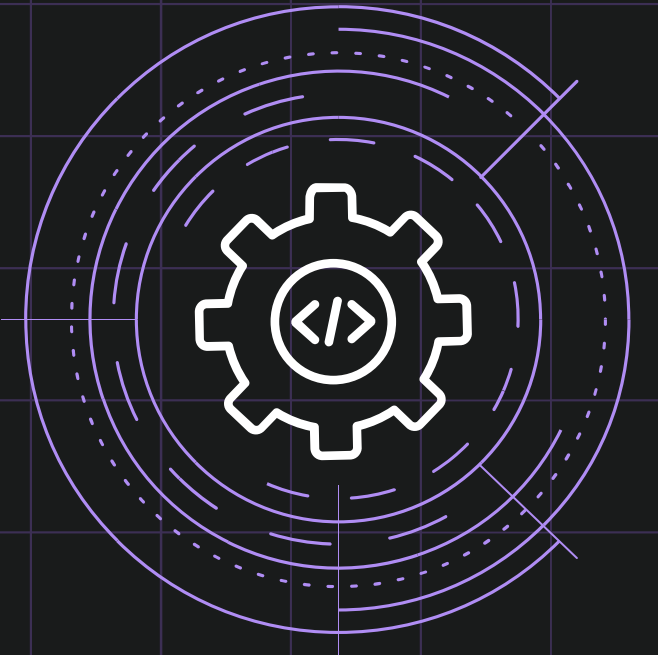
**Computer
Science**



**Information
Systems**



**Information
Technology**



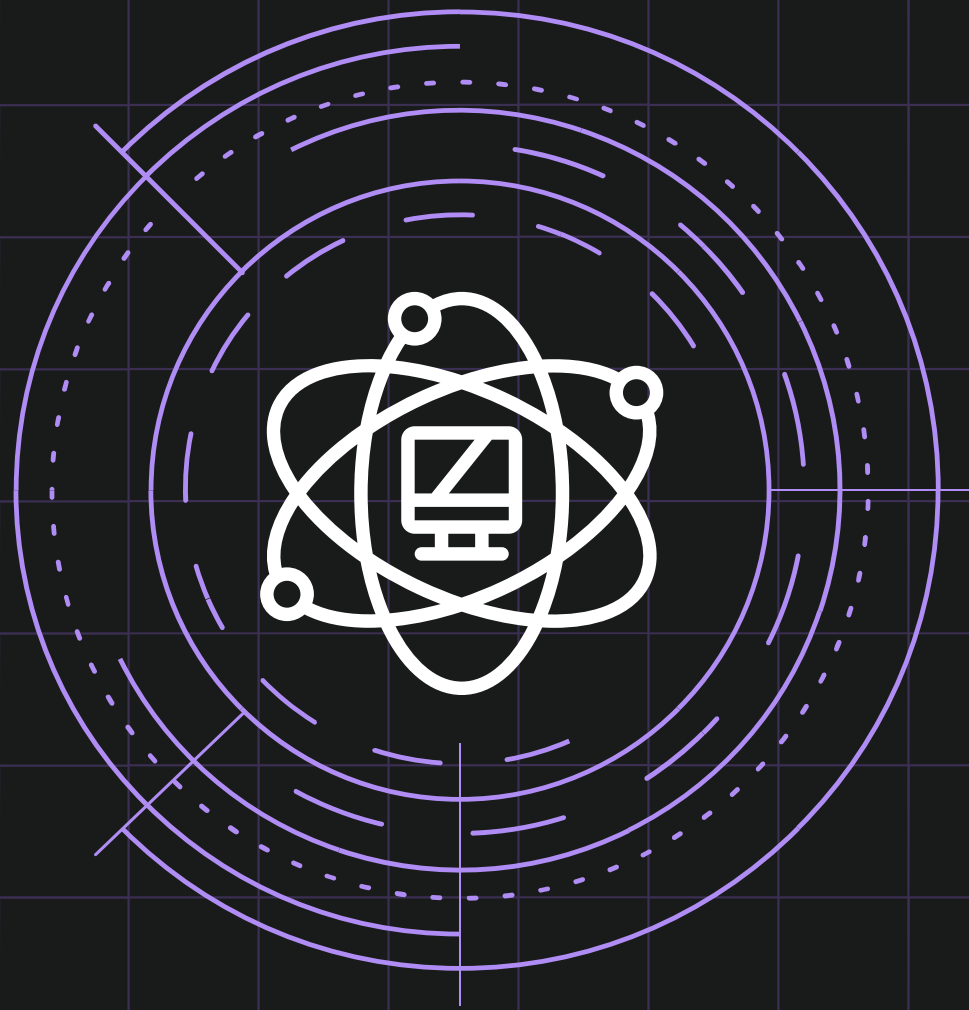
**Software
Engineer**



Computer Engineer

embodies the science and technology of designing, constructing, implementing, and maintaining software and hardware components of modern computing systems and computer-controlled equipment

(Computer Engineering - ACM CCECC, n.d.)



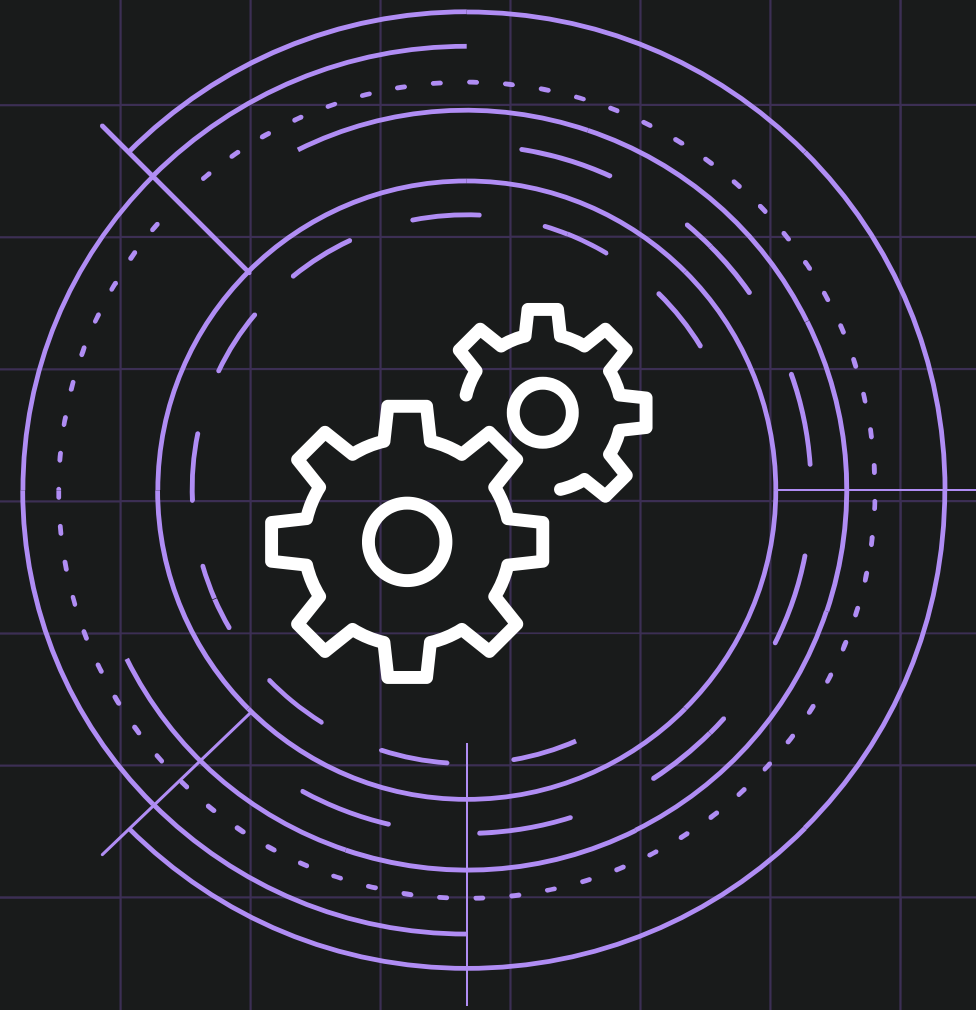
Computer Science

The study of **computation**,
information, and automation.

Wikipedia contributors. (2024, August 25)

The study of computers and computing,
including their theoretical and algorithmic
foundations, hardware and software, and
their uses for processing information.

Tucker, A., & Belford, G. G. (2024, August 11)



Information Systems

the study of complementary networks of hardware and software that people and organizations use to collect, filter, process, create, and distribute data

(Bourgeois & Bourgeois, 2014)



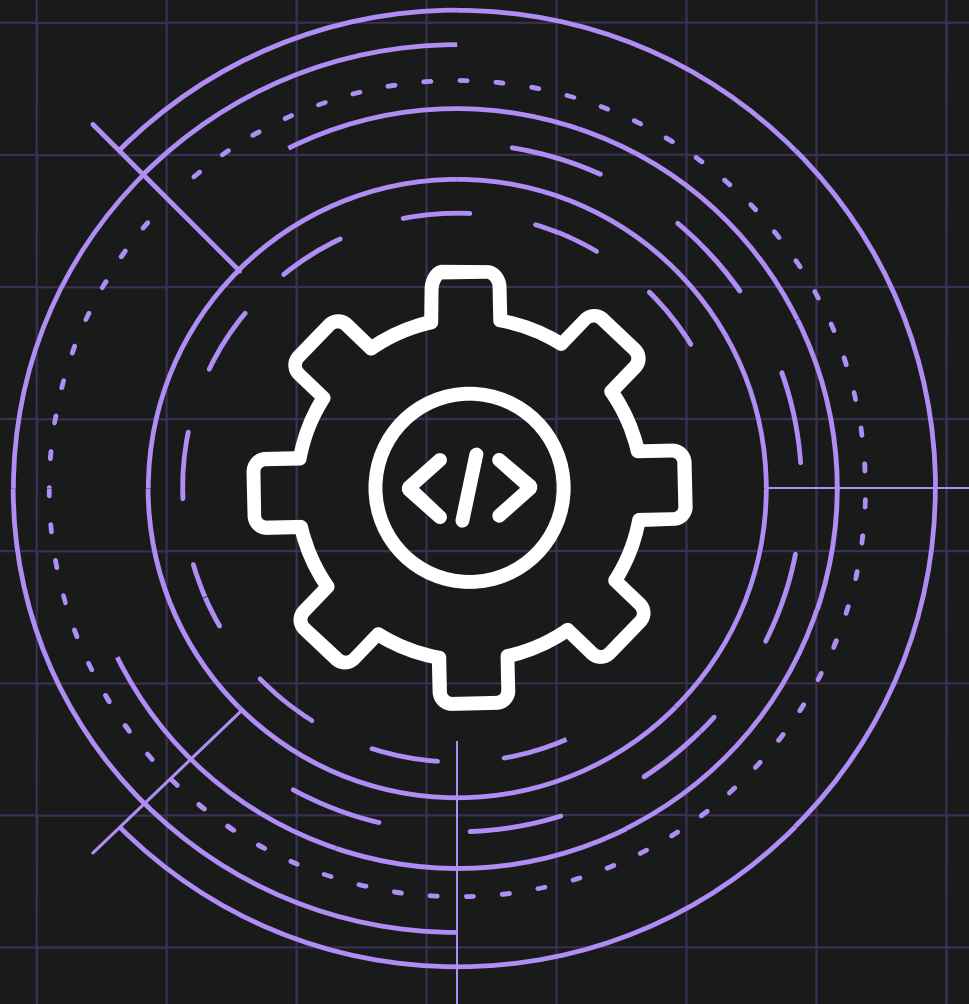
Information Technology

A set of related fields that encompass computer systems, software, programming languages, and data and information processing, and storage.

(Wikipedia contributors, 2024a)

the use of computers, storage, networking and other physical devices, **infrastructure** and processes to create, process, store, secure and exchange all forms of electronic data.

(Yasar, 2024)



Software Engineer

An engineering-based approach to software development that applies the engineering design process to design, develop, test, maintain, and evaluate computer software.

(Yasar, 2023)

An analytical thinker who enjoys solving problems and making technology easier to use, you may find a career as a software engineer rewarding.

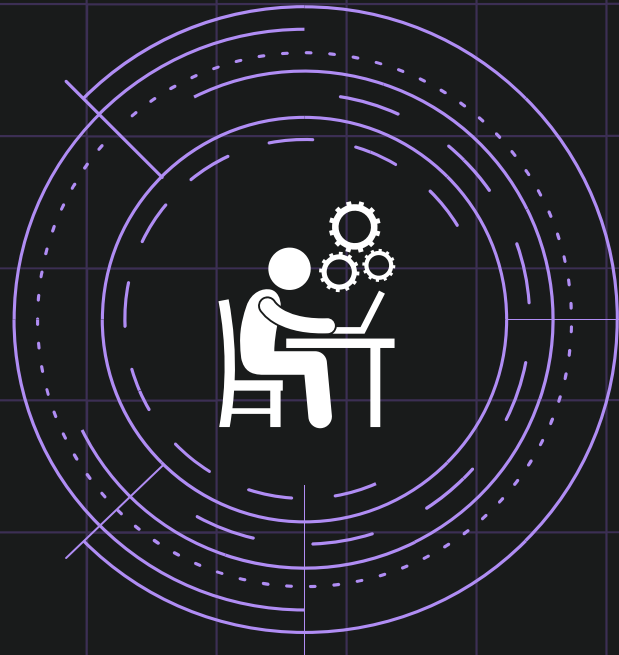
(Staff, 2024)

ANALYSIS AND REACTION

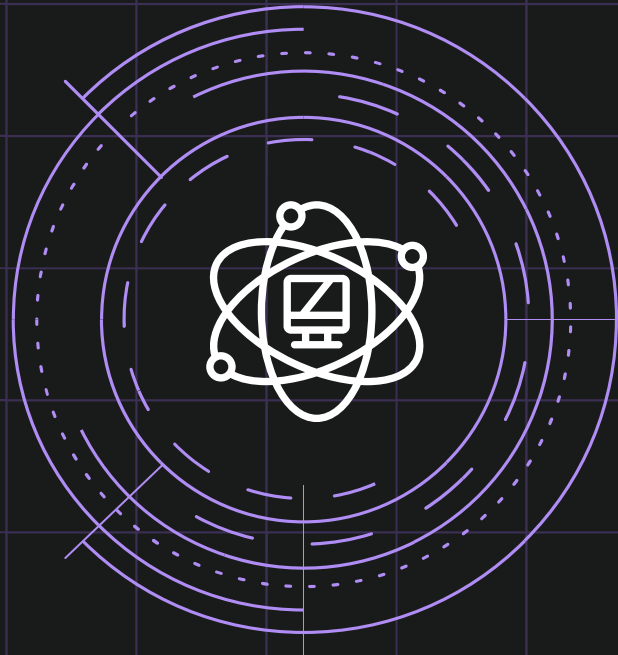
Considering all the computer disciplines and their corresponding majors, one's interests and career goals within the broad area of computing eventually determine the major they should pursue. Since its beginnings, every major and subject has experienced plenty of growth in response to evolving social needs and innovations in technology. It's important to research each option carefully and consider factors such as job outlook, salary potential, and the specific skills and knowledge required.



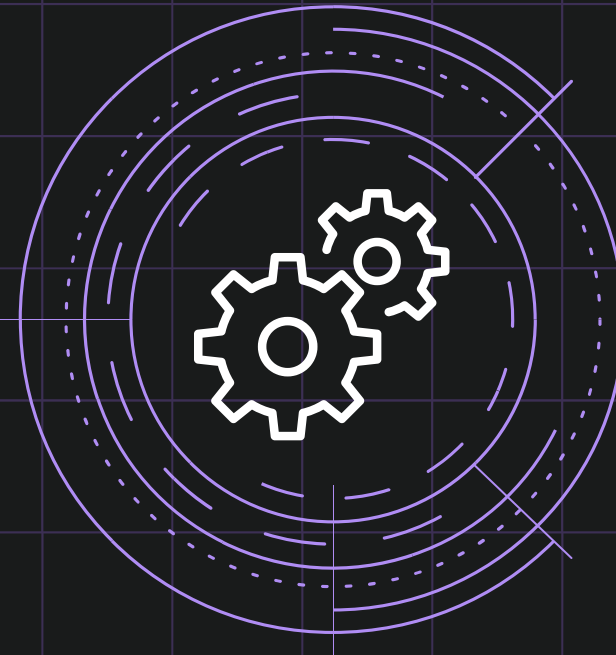
COMPUTING MAJORS



**Computer
Engineer**



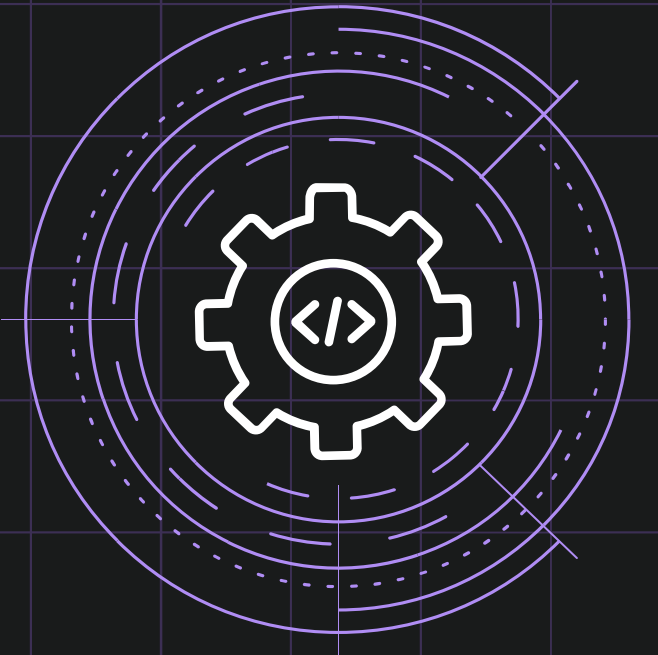
**Computer
Science**



**Information
Systems**



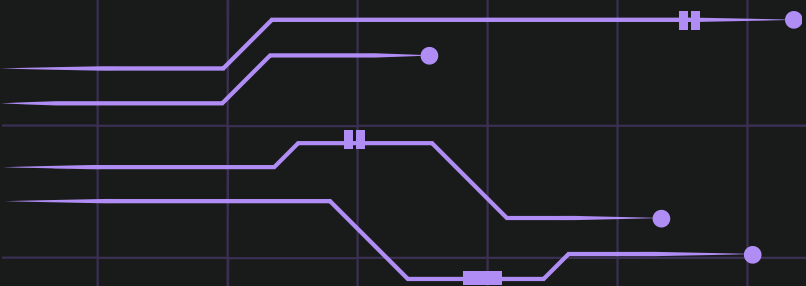
**Information
Technology**



**Software
Engineer**

PSYCH MARISCAL

BS INFORMATION TECHNOLOGY





References

Tucker, A., & Belford, G. G. (2024, August 11). Computer science | Definition, Types, & Facts. Encyclopedia Britannica. <https://www.britannica.com/science/computer-science>

Wikipedia contributors. (2024, August 25). Computer science - Wikipedia. https://en.wikipedia.org/wiki/Computer_science

Computer Engineering - ACM CCECC. (n.d.). <https://ccecc.acm.org/guidance/computer-engineering>

Bourgeois, D., & Bourgeois, D. T. (2014, February 28). Chapter 1: What is an information system? Pressbooks. <https://ecampusontario.pressbooks.pub/infosysbus/chapter/chapter-1-what-is-an-information-system/>

Wikipedia contributors. (2024a, August 18). Information technology - Wikipedia. https://en.wikipedia.org/wiki/Information_technology





References

Yasar, K. (2024, May 9). information technology (IT). Data Center.
<https://www.techtarget.com/searchdatacenter/definition/IT/>

Yasar, K. (2023, March 14). software engineering. WhatIs.
<https://www.techtarget.com/whatis/definition/software-engineering>

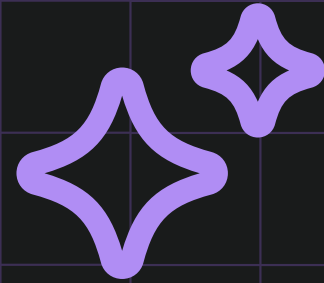
Staff, C. (2024, March 29). What does a software engineer do? Coursera.
<https://www.coursera.org/articles/software-engineer>



QUOTE

“A computer is like a violin.” You can imagine it making beautiful music, but you have to learn how to play it.”

Bill Gates



THANK YOU!

Please feel free to ask any
questions you may have.

