

Introduction to Computer Science

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What is Computer Science?

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- What is science?
- What is a computer?

Motivation

Scenario

Suppose you are given a directory of staff from a company with over 10000 employees. In that directory, you are given a summary for each person – their name, address, SIN, job title, salary, etc. You want to be able to see the hierarchy of command, query information about workers in the in company, and be able to add, delete, and modify the data **QUICKLY**. How would you do it?

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 - but what does convenient mean?
 - what if organizing the database one way makes it "convenient" for one type of task but at the expense of another?
- 3 Manually edit the company directory when you need to

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- What is an algorithm?

Algorithm

Definition

An algorithm is a (finite) sequence of instructions.

Examples:

- cooking recipes
- driving instructions
- lego instruction
- rubik cube solver

Seems easy huh?

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- Code it up ← we are starting here

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- Test it thoroughly
- Maintain it

Computers are SITOPID!?

When you give instructions to human vs. computer

Linda

- 1 How does my peanut butter sandwich taste?

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When you give instructions to human vs. computer

Apple LISA

- 1 Locate hand and PB sandwich

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- 8 Construct feedback

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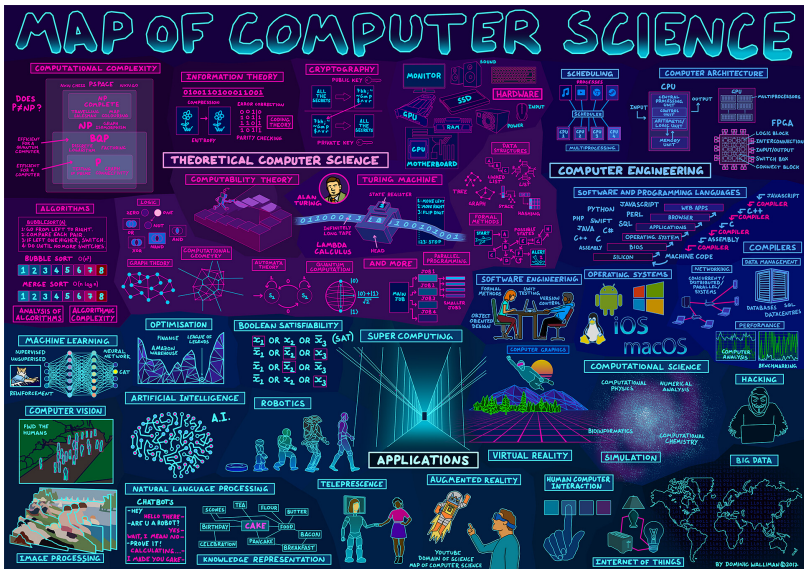
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- 8 Construct feedback
- 9 Vocalize it

Summary



IT'S TIME FOR ...

PYTHON TIME!