

Is BFS Artificial Intelligence?

BFS was invented by E. F. Moore (remember Moore machines?).

After you have seen BFS, it seems pretty simple.

But people used to think of it as “artificial intelligence.”

You will use DFS (depth-first, using a stack instead of a queue) soon in an MP.

The Point: Algorithms Can Be Subtle

Finding the simplest algorithm to solve a problem can be challenging.

Experience helps.

Classes help.

All CompEs must take **CS225 (Data Structures)** and **CS374 (Algorithms)**, so you have time to learn.

Don't worry about finding ideal solutions in our class.

Build Good Habits Now

What can you do now?

1. **Start with a mental model** (for now, as a flow chart on paper).
2. **Write lots of comments.**
3. **Structure your code clearly.**
4. **Avoid repetition:**
 - Reuse code instead of cutting and pasting.
 - Every time you copy code, you copy any bugs that the code contains.

Some Tips as You Get Started

5. Design your code to simplify testing:

- You have finite time.
- A program that is hard to test will be tested less often and less thoroughly.

6. Test code piece by piece:

- Do not write all code before testing.
- Bugs are more likely in new code.