AP Computer Science Principles

Common Mistakes · 常见错误

CSP is tested on precise use of its vocabulary and on reasoning about consequences. Most lost points are for describing what something does instead of what it IS, and for claims about impact with no mechanism.
CSP 考术语的精确使用与后果推理: 只描述功能、不写机制不得分。

Terminology

Confusing lossy with lossless compression. Lossless can restore the original exactly; lossy cannot, and that is the whole distinction.

Confusing an overflow error with a round-off error. Overflow means the value exceeds the range; round-off means it exceeded the precision.

Saying an algorithm 'runs forever' when the point is that it grows exponentially – reasonable time means polynomial growth.

Calling a problem 'hard' when the term wanted is undecidable, which means no algorithm can answer it for every input.

Confusing a parameter with an argument, or a procedure's definition with its call.

Describing the internet as 'the web'. The web is one service running on the internet.

Reasoning about data and impact

Claiming a program has a beneficial or harmful effect with no mechanism. Say HOW the effect comes about and on whom.

Describing bias in a program as intentional. It is usually inherited from the training data or the designers' assumptions.

Saying data is anonymous because names were removed. Combining datasets can re-identify individuals, and that is the examined point.

Confusing the digital divide with a lack of interest in technology. It is about ACCESS – cost, infrastructure, and skills.

The Create task

Submitting a program whose list serves no purpose. The list must manage complexity in a way the written response explains.

Describing the procedure without stating what it does, what its parameter affects and how it is used in the program.

Explaining the algorithm without identifying its sequencing, selection and iteration.

Writing about what the program is 'meant to do' rather than what the submitted code does.

Using code you did not write without acknowledging it, which can invalidate the submission.