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If a source code is randomly crashing and not always in the same place, there could be several reasons for it. Some possible reasons are:

Memory issues: The code may be trying to access memory that it shouldn't be accessing, leading to segmentation faults or other memory-related errors.

Concurrency issues: The code may be using multiple threads or processes, and there may be race conditions or other synchronization issues that are causing crashes.

Input data issues: The code may be receiving input data that is causing unexpected behavior or triggering edge cases that the code is not prepared to handle.

System/environmental issues: The code may be sensitive to changes in the environment, such as changes in system resources, network connectivity, or other external factors.

To isolate the cause of the random crashes, I would take the following steps:

Collect crash information: Use a debugger or other monitoring tool to collect information about when and where the crashes are occurring, as well as any error messages or other diagnostic information that is available.

Analyze the code: Review the code to identify any potential issues that could be causing the crashes, such as memory access violations or synchronization problems.

Test different scenarios: Create test cases that exercise different parts of the code and different inputs to try to reproduce the crashes in a controlled environment.

Monitor system resources: Use system monitoring tools to check for any unusual spikes or drops in system resources, such as CPU usage, memory usage, or disk I/O.

Consider external factors: Review any changes that have been made to the system or environment, such as software updates or changes to network connectivity, that may be affecting the code.

In terms of computer architecture, the underlying hardware and system architecture can also have an impact on the code's behavior and stability. For example, issues such as cache misses, memory alignment, and hardware errors can all cause crashes or unexpected behavior. Understanding the details of the underlying architecture can help in identifying and diagnosing these types of issues.