The Limits of Testing

TDD or not TDD

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- Testing proves presence of bugs, not absence

- Testing frameworks in Xcode have evolved significantly

    - Many still "hold it wrong" by not testing boundary cases

- TDD was developed as way to bridge the gap of incomplete specifications by non-domain experts

- Fundamental limitation: state space explosion 💥

- The opportunity: Compiler Verification

    - What if domain experts could read and validate the specification

    - What if the compiler could prove correctness at compile time?

    - Do we even need tests if the compiler can verify correctness?

Improving Software Quality
Practical Formal Methods Approach