## Software Engineering and Bug Detection Using Graph Theory

- Video: https://drive.google.com/file/d/1eomc1q-KbLa44K WpIEXEeAXpjtpBt52/view?usp=drivesdk
- ★ Title: Graph Theory in Software Engineering & Bug Detection
- Property in Software Engineering & Bug Detection

## **Description:**

Ever wondered how software engineers detect bugs efficiently? Graph Theory plays a crucial role in software analysis, helping developers visualize and resolve complex dependencies, detect dead code, and optimize program structures.

- What You'll Learn:
- Key graph types used in software engineering
- Graph representations in programs (Control Flow Graphs, Dependency Graphs, Data Flow Graphs)
- ✓ Techniques for bug detection using graphs
- ✓ Real-world applications: LLVM, Code Sonar, Google Bug Prediction
- Benefits of using Graph Theory in software development
- **Case Study:** Learn how leading tech companies use graph-based techniques to enhance software reliability and performance!

## **About Me:**

I'm Salvin Sorgy, an MCA student at Marian College Kuttikkanam (Autonomous), passionate about Machine Learning, Software Development, and Optimization Techniques.

- **★** Stay Connected:
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