

# How to Write a Project Proposal

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**What is the problem you are addressing?**

**What is the context?**

**What is your approach?**

**How will you evaluate your approach?**

**Based on your results what future directions will be possible?**

## ~~Approach Outline~~

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~~Connection analysis is ...~~

~~We will implement connection analysis in OpenAnalysis.~~

~~Using UseOA-ROSE to connect OpenAnalysis to ROSE, we will analyze a number of C and C++ programs.~~

# Approach Outline

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**Connection analysis is ... (provide a small concrete example)**

**We will implement connection analysis in OpenAnalysis**

- using the ICFG data-flow framework (details, similar to existing managers?)
- whether we can or cannot use existing analysis results data structures (details)

**Using UseOA-ROSE to connect OpenAnalysis to ROSE, we will analyze a number of C and C++ programs.**

- We will create small programs that exercise/test various aspects of the analysis.
  - which aspects
  - which papers are a source of small examples relevant to connection analysis
- We will analyze the following benchmarks (b1.c, b2.cpp, etc.)

**Evaluation**

- We will record the reduction in possible locations each memory reference may access.
- We will time the analysis itself and plot the execution time wrt program size.