

# Title of Paper

Student Name, Student Name

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## 1 Problem Statement

A short description (one paragraph or less) of the problem you trying to solve. You might even refer to specific papers [1].

Note that the problem may have been refined from previous milestones. If there are significant changes, please discuss with the instructor.

## 2 Solution Idea

Solution Idea: A short description (one or two paragraphs) of how you propose to solve the problem. If the goal of your project is an empirical evaluation of some sort, name this section "Study Goal."

Note that the solution idea may have been refined from the previous milestones. If there are significant changes, please discuss with the instructor.

## 3 Threat Model

A description (at least several paragraphs) describing the security assumptions for your solution idea. A good threat model should describe: (a) who is the adversary, (b) what are the goals of the adversary, (c) what are the capabilities of the adversary, and (d) what is the trusted computing base (TCB). Note, when describing the adversary capabilities, it is often useful to describe assumptions of what the adversary cannot do (e.g., does not have physical access to a device).

## 4 Research Questions

A list of at least three (more desired) research questions that inquire about the problem and/or solution idea. Research questions should be specific, concrete, and unambiguous questions. For example, research questions may inquire about protection against specific threats, performance overhead, scalability, and usability.

**RQ1:** *What are your research questions?*

**RQ2:** *There should be at least three, but more would be better.*

**RQ3:** *Make sure the questions are specific, concrete, and unambiguous.*

## 5 Methodology

A high level description of how you plan to answer the research questions. For example, a project might design and implement a protection and then empirically evaluate the protection in some way.

## 6 Evaluation Plan

A description of how you plan to answer the research questions. The evaluation plan may mirror the research questions, or multiple research questions (e.g., **RQ1** and **RQ2**) may be answered by a single part of the evaluation. The proposed evaluation may be split into both the design and a more formal evaluation section. In system security research papers, the design section often provides a form of evaluation by describing how the solution defends against potential attacks. If possible, a security evaluation section should summarize the defense against the threat model. Systems security papers also have more formal evaluation sections that consist of several experiments. For each experiment, you should describe: (a) experimental setup (e.g., hardware, software, and datasets used), (b) specific measurements and metrics you plan to use, and (c) what constitutes success.

### 6.1 Name of Experiment 1

State some hypothesis for the experiment. Note which research question it is designed to address.

#### 6.1.1 Experimental Setup

Describe the hardware, software, and datasets you intend to use. Note that you should be realistic in what you can get access to.

#### 6.1.2 Expected Results

Describe the specific measurements and metrics you plan to use. Describe what constitutes success (i.e., what you

expect to achieve).

## **6.2 Name of Experiment 2**

State some hypothesis for the experiment. Note which research question it is designed to address.

### **6.2.1 Experimental Setup**

Describe the hardware, software, and datasets you intend to use. Note that you should be realistic in what you can get access to.

### **6.2.2 Expected Results**

Describe the specific measurements and metrics you plan to use. Describe what constitutes success (i.e., what you expect to achieve).

## **6.3 Name of Experiment 3**

State some hypothesis for the experiment. Note which research question it is designed to address.

### **6.3.1 Experimental Setup**

Describe the hardware, software, and datasets you intend to use. Note that you should be realistic in what you can get access to.

### **6.3.2 Expected Results**

Describe the specific measurements and metrics you plan to use. Describe what constitutes success (i.e., what you expect to achieve).

## **References**

- [1] J. Doe, J. Smith, and J. Doe. A Sample BibTeX Entry. In *Proceedings of the Sample BibTeX Conference (SBC)*, 2013.