

Intro, motivation

Intellectual Merit. How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

- *Challenge 1.*
- *Challenge 2.*

Broader Impacts. How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

Keywords: at least 3 keywords.

1 Introduction

The intro

1.1 Intellectual Merit: ...

Intellectual merit.

Key Research Challenges

Summary of the challenges.

1.2 Broader Impacts

Broader impacts.

2 Research Plan

One subsection per challenge

3 Curriculum Development Activities

Education, courses

4 Schedule

Tasks and timeline.

5 Results from Prior NSF Support

PI Syriani is a new investigator and has no prior NSF support.

Data Management Plan

We will publish our results in leading conferences and journals. As is typical in the software engineering community, we will rigorously define our experimental procedures. For example, for each case study we will provide the definition and context, including subject software systems, benchmarks, metrics, and the study setting. In addition, we will document our research questions and hypotheses, our data collection and analysis procedures, results, and threats to validity. We will provide access to our data files via online appendices.

We will release all software artifacts developed in association with this project under the *BSD 3-Clause License* (the “New BSD” license) and will make them available via an appropriate outlet such as Google Project Hosting.

We will distribute annual reports via our web site.