

ADULT CONSENT TO PARTICIPATE IN RESEARCH

Studio Software Artifact Collection

Principal Investigator: Mona Rahimi, Doctoral Student

Institution: DePaul University, Chicago, Illinois, USA

School: School of Computing

Faculty Advisor: Jane Cleland Huang, PhD, School of Computing

What is the purpose of this research?

We are asking you to be in a research study because we are trying to develop improved techniques for evolving software systems – particularly in the safety-critical domain. This study is being conducted by Mona Rahimi, a doctoral student at DePaul University as a requirement to obtain her PhD degree. This research is being supervised by her faculty advisor, Dr. Jane Cleland-Huang.

We hope to include about 35-50 people in the research.

Why are you being asked to be in the research?

You are invited to participate in this study because you are a student in Studio course and over the age of 18. In this offering of Studio we are going to be developing apps and web-services that interact with a variety of different sensors or actuators – for example to measure air or water pollution, control octocopters, or measure human health factors. Each of the products we develop can be contextualized as a safety-critical product. For example, an app that measures and maps pollution could potentially be re-instrumented to detect nuclear radiation. The goal of the research is to collect software artifacts for safety-related projects. As such, these Studio projects provide the kind of artifacts i.e. requirements, design, code, and safety-related documents that we are interested in collecting.

What is involved in being in the research study?

All Studio students will engage in a software development project that is normally required for the course. If you agree to be in this study then we will collect the software artifacts produced by your team from the version control system and will use them for research purposes. Software artifacts include, but are not limited to, requirements, design, safety artifacts, source code, test cases, and documentation. The software artifacts will be released to a public domain that is normally done for the course. When publishing the software artifacts to the public domain, you may request to have your name redacted and replaced with a pseudonym. No grade-related information or teacher/student feedback will be collected for purposes of the study. You will not be required to perform any additional work specifically for the purposes of this study.

How much time will this take?

We do not anticipate that the study will take any additional time. You will not be required to prepare any documents that are not part of the regular Studio course.

Are there any risks involved in participating in this study?

There are no identified risks associated with participating in the study.

Are there any benefits to participating in this study?

There are no direct benefits for being in the research.. However, students who opt-in to the data collection process will be making a contribution to the state-of-the art in developing safety-critical software.

Is there any kind of payment, reimbursement or credit for being in this study?

At the end of each quarter (Winter and Spring), all participants who remain in the study will be given the chance to enter a drawing for a \$50 amazon certificate. Two certificates will be awarded each quarter. In order for the winner to receive this gift, we must collect your name, and mailing address.

Are there any costs to me for being in the research?

There is no cost to you for being in the research. You are responsible for any normal costs related to being involved in the Studio course

Can you decide not to participate?

Your participation is voluntary, which means you can choose not to participate. There will be no negative consequences, penalties, or loss of benefits if you decide not to participate or change your mind later and withdraw from the research after you begin participating. If you choose not to participate you will be assigned to a non-participatory group. If only one or two people opt out, then additional people will be added to the group to establish a minimum group size of three people. Because data is collected for a group, we cannot accommodate opt-outs during a quarter; therefore you must decide carefully whether you are willing to participate in the data collection or not for an entire quarter. If you wish to stop participating at the end of the first quarter, you will be allowed to join a non-participatory group if such a group exists, or otherwise to clone your project and continue from the existing baseline. Your decision whether or not to be in the research will not affect your grades.

Are there other options to my being in the research?

Students who choose not to participate will conduct the same activities as study participants.

Who will see my study information and how will the confidentiality of the information collected for the research be protected?

As per normal Studio practices, project artifacts will be released to the public domain under a centralized GitHub account. There is therefore no expectation of confidentiality. A student may opt to redact his/her personal information in the released source code, but will otherwise be fully attributed for the development of the product. All contributing students will be co-owners of the

project and will have full rights to the software to develop, branch, independently commercialize as they see fit. The PIs (Dr. Jane Cleland-Huang and Mona Rahimi) will also retain ownership of the artifacts for research purposes only.

Who should be contacted for more information about the research?

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study or you want to get additional information or provide input about this research, you can contact the researcher, Mona Rahimia (mrahimi@siu.edu) or Jane Cleland-Huang (jhuang@cs.depaul.edu).

This research has been reviewed and approved by the DePaul Institutional Review Board (IRB). If you have questions about your rights as a research subject you may contact Susan Loess-Perez, DePaul University's Director of Research Compliance, in the Office of Research Services at 312-362-7593 or by email at sloesspe@depaul.edu.

You may also contact DePaul's Office of Research Services if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.

You will be given a copy of this information to keep for your records.

Statement of Consent from the Subject:

I have read the above information. I have had all my questions and concerns answered. By signing below, I indicate my consent to be in the research.

By completing the study activity you are indicating your agreement to be in the research.

Signature: _____

Printed name: _____

Date: _____