**CHI 2019 Installations Supplement**

Use this supplement to demonstrate the practical requirements of showcasing your interactivity submission at CHI and provide an informal overview of what CHI attendees can expect from your submission. It is intended to give as rich a picture of your project and presentation requirements as possible. **This document is required; your submission will not be reviewed unless this document is completed with your submission.**

To explain how your project works, you should provide a short usage scenario, a storyboard sketch, screenshots, illustrations, and/or photos.

The supplement should also describe the practical requirements of your submission such as preferred setting, space, power, networking, lighting, acoustical, and other special equipment.

Finally, your supplement should include a description of the “elevator pitch”: describe how are you going to process participants and limit your presentation to a maximum of 5 minutes per user, to avoid large lineups.

It is important to remember that the reviewers of Demonstrations submissions can only make decisions based on the knowledge contained in this document, your extended abstract, still image and your video. You should use this supplement to provide as clear and concise an overview of the experience you are hoping to create and the practical requirements of making that happen.

**CONTACT INFO – REQUIRED.**

*Please note that this is in case the CHI technical team needs to contact you, it will not jeopardize the blind review process.*

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**DESCRIPTION**

**Title: Live Programming By Example**

**Project Description:**

Live programming is a novel approach for programming practice. Programmers are given real-time feedback when writing code, traditionally via a graphical user interface. Despite live programming's practical values, such as providing an easier overview of code and better understanding of its structure, live programming is still not widely used by everyday programmers.  In this work, we extend the live programming paradigm to general purpose code editors, which allows for live programming to finally be used by programmers and gives another way of understanding what the given code is doing, and how to easily change it.

To achieve this we extended a fully-featured IDE with the ability to show input/output examples of code execution, as the programmer is writing code.  Furthermore, we integrate programming by example (PBE) synthesis into our tool by allowing the user to change the shown output, and have the code update automatically.  Our goal is to use live programming to give novice programmers a new way to interact and understand programming, as well as being a useful development tool for more advanced programmers.

**PRESENTATION HISTORY**

The work has not previously been presented.

**ENVISIONED INTERACTION**

We will first give participants an overview and background on “live programming” and “programming by example”. In the case of lineups, this introduction can be given while another participant is working with the second researcher on a laptop (we plan to have both of the two student authors attending to present this demo). When a laptop is available, we will use a hotkey to reset the demo to its initial state. We will live code the live programming by example demo use-case from our video while explaining the interface to participants. We will then allow the participant, as time allows, time to interact in their own way with the tool. One researcher will continue to observe, learn from, and guide the participant in their use of the tool.

**TECHNICAL REQUIREMENTS**

**EQUIPMENT**

*Example questions:*

We would require a desk space (preferable at standing height) with space for one (or ideally two) laptop computers. If power outlets are limited, we can make use of only 1, by occasionally swapping which laptop is charging.

**FLOOR PLAN**

We have a standard booth size of 3 m x 3 m.  Draw a plan of your exhibit in this space.