Software Engineering Seminar

Human Studies in Debugging

Description

With more and more elaborate debugging techniques getting developed by researchers, one can pose the question whether these techniques are (or could be) actually successfully used by human developers. Currently, it is rather common for research groups to propose a technique without doing any actual user studies (since it is expensive), so answering this question is usually non-trivial. Moreover, the entire human debugging process is very complex and is not even very well researched. For example, [1] tries to solve some of the existing issues.

The student should search for and examine human studies related to debugging and discuss potential issues.

References

[1] Marcel Böhme, Ezekiel O. Soremekun, Sudipta Chattopadhyay, Emamurho Ugherughe, and Andreas Zeller. Where is the bug and how is it fixed? an experiment with practitioners. In *Proceedings of the 2017 11th Joint Meeting on Foundations of Software Engineering, ESEC/FSE 2017, Paderborn, Germany, September 4-8, 2017*, pages 117–128, 2017.

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