

Institute of Software Technology

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Bachelor Thesis

How Are Different Asynchronous Programming Constructs in JavaScript Related to Software Quality? A Repository Mining Study on GitHub

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Course of Study: Software Engineering

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Abstract

Here Abstract.

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1 Introduction

1.1 Motivation

1.2 Goals / Research Questions

1.3 Thesis structure

The structure of the thesis will be presented as follows:

Chapter 2 (Technical Background and Fundamentals)

2 Technical Background and Fundamentals

2.1 JavaScript

2.2 Frameworks

2.3 Asynchronous Programming Constructs

2.4 Software Quality

3 Related Work

4 Methodology

4.1 Study Objects

4.2 Data Collection

4.3 Categorizing Bugs

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4.5 Hypotheses

4.6 Statical Analysis

5 Analysis and Results

5.1 RQ1 (callbacks)

5.2 RQ2 (async/await)

5.3 RQ3 (promises)

6 Discussion

6.1 RQ4 (something general)

6.2 Threats to Validity

7 Conclusion

This chapter summarizes the thesis and suggests possible directions for future work.

7.1 Summary

7.2 Future Work ?

All links were last followed on October 30, 2022.

Declaration

I hereby declare that the work presented in this thesis is entirely my own and that I did not use any other sources and references than the listed ones. I have marked all direct or indirect statements from other sources contained therein as quotations. Neither this work nor significant parts of it were part of another examination procedure. I have not published this work in whole or in part before. The electronic copy is consistent with all submitted copies.

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