

Incremental Type-Safe Structural Diffing

Jort van Gorkum

December 7, 2021

1 Introduction

- What is the problem? Illustrate with an example.
- What is/are your research questions/contributions?

2 Background

- What is the existing technology and literature that I'll be studying/using in my research
- hdiff weaknesses
 - One of the inefficiencies is that the patch is equal to the tree size
 - To determine the diff the complete tree needs to be scanned, even for a small change
- truediff weaknesses
 - In the paper there are no experiments on automatically resolving conflicts
- Tree Sitter
 - A parser generator tool and an incremental parsing library.
 - Can be used to generate the changes between two files.

3 Preliminary Results

- What examples can you handle already?
- What prototype have I built?
- How can I generalize these results? What problems have I identified or do I expect?

4 Timetable and Planning

- What will I do with the remainder of my thesis?
- Give an approximate estimation/timetable for what you will do and when you will be done.

A Appendix