

Verifying the Rope Data Structure of Xi-Editor

Anna Scholtz
University of British Columbia
ascholtz@cs.ubc.ca

ABSTRACT

This paper describes a formal specification and verification of the rope data structure used for storing text in xi-editor. We are using the language and verifier Dafny for verifying the functional correctness and defining the specification. In our use of formal methods, we focus on proving that the rope data structure still conforms to the defined properties after applying several common operations.

KEYWORDS

Formal Verification, Dafny, Rope Datastructure

1 INTRODUCTION

2 EVALUATION

3 RELATED WORK

4 FUTURE WORK

5 CONCLUSION

The code is published on: <https://github.com/scholtzan/cpsc-513-project>

REFERENCES