

Abstract

Categories and Subject Descriptors F.4.1 [*Mathematical Logic and Formal Languages*]: Mathematical Logic—Proof Theory; I.2.2 [*Artificial Intelligence*]: Automatic Programming—Program Synthesis

General Terms Languages, Theory

Keywords Functional Programming, Proof Search, Program Synthesis, Type Theory

1. Introduction

2. Alternate Languages of Regular Expressions

2.1 Regular Expressions

2.2 Examples

2.3 Exemplified Regular Expressions

2.4 DNF Exemplified Regular Expressions

3. Alternate Languages of Lenses

3.1 Lenses

3.2 DNF Lenses

4. Search Strategy

4.1 Equivalence Relation

4.2 Distance Metric

5. Implementation

5.1 Evaluation

6. Related Work

6.1 FlashFill

6.2 FlashExtract

6.3 SemFill

7. Future Work

7.1 Complex Data Structures

7.2 Richer Classes of Lenses

Acknowledgments

References