

Liquid Proof Macros

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Abstract

Proof Macros for Liquid Haskell

CCS Concepts: • Software and its engineering → Formal software verification.

Keywords: Liquid Haskell, proof macros, tactics

ACM Reference Format:

Henry Blanchette, Niki Vazou, and Leonidas Lampropoulos. 2018. Liquid Proof Macros. In *Proceedings of ACM Conference (Conference'17)*. ACM, New York, NY, USA, 1 page. <https://doi.org/XXXXXXX.XXXXXX>

1 Introduction

Writing Liquid Haskell proofs is hard. Using Template Haskell we can make it easier!

Our contributions are:

- A methodology for using Template Haskell to automatically construct Liquid Haskell hints.
- An instantiation of that framework for automating Liquid Haskell inductive proofs.

2 Extended Example

LEO: Comments work?

Sample citation: [1]

3 Using Template Haskell for Liquid Proofs

4 Implementation

Acknowledgments

We thank Jacob Prinz and the anonymous reviewers for their helpful comments. This work was supported by NSF award #2107206, *Efficient and Trustworthy Proof Engineering* (any opinions, findings and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the NSF).

References

- [1] Yiyun Liu, James Parker, Patrick Redmond, Lindsey Kuper, Michael Hicks, and Niki Vazou. 2020. Verifying Replicated Data Types with Typeclass Refinements in Liquid Haskell. In *Proceedings of the ACM Conference on Object-Oriented Programming Languages, Systems, and Applications (OOPSLA)*.

Conference'17, July 2017, Washington, DC, USA

2018. ACM ISBN 978-x-xxxx-xxxx-x/YY/MM...\$15.00

<https://doi.org/XXXXXXX.XXXXXX>