Marisa Kirisame

Education

2015–2019 **Bachelor**, *University of Washington*, Seattle, GPA 3.28.

Experience

2015–2019 **PLSE**, *Seattle*, Undergraduate Researcher.
Worked on Cassius and Verdi at freshman. Gained some research experience.
Worked on Astraea, continued working on DDF at sophomore.
Worked on relay at junior/senior.

2017 **MSRA**, *Beijing*, Summer Intern.
Worked on Deep Learning (knowledge distillation) using pytorch and tensorflow.

2016 **Thoughtworks**, *Beijing*, Summer Intern.
Worked on DDF.

Publications

[1] Jared Roesch, Steven Lyubomirsky, Logan Weber, Josh Pollock, Marisa Kirisame, Tianqi Chen, and Zachary Tatlock. Relay: A new IR for machine learning frameworks. *CoRR*, abs/1810.00952, 2018.

Project

TVM (C++) Top 20 contributor, worked on Relay for over 1 year. Implement Algebraic Data Type, Automatic Differentiation, Reference, Pretty Printing, Ahead-Of-Time Compiler that compile Relay code to C++ code, contributed to Type Inference.

Happy-Tree (Haskell) A polytypic decision tree that work on any True-Sums-Of-Products

Ordinary (Haskell) A small web game to teach programming. Used Functional Reactive Programming, Nix, Zipper, and GHCJS.

PE (MetaOCaml) Simply Typed Lambda Calculus with reference/product/sum with bidirectional type checking, partial evaluation, automatic differentiation.

DDF (Haskell) A Higher order Deep Learning Framework for differentiable programming, using Final Tagless and Template Haskell.

Astraea (Coq) Try to bring equality satruation to Compcert, a verified C compiler in Coq.

Prover (C++) An automated theorem prover for first order logic that use Gentzen's Sequent Calculus. Logic Formula represented as Generalized Algebraic Data Type using Template Metaprogramming in C++.

Coursework

- Programming Language, Graduate TCS
- Advanced Computer Architecture
- Deep Learning
- Operating System
- Database
- System for Machine Learning

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