Autotuning HLS for FPGAs using OpenTuner and LegUp

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ReConFig, December 5, 2017

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Slides

The slides and all source code are hosted at GitHub:

- `github.com/phrb/legup-tuner`
- `github.com/phrb/slides-reconfig-2017-autotuning`

Why use FPGAs?

Why use High-Level Synthesis?

Why use autotuning for HLS?

Compare with Huang's work

Autotuning Industry Designs for VTR

Describe Xu's work with OpenTuner

Describe CHStone and Metric Composition Strategy

Weighted Optimization Scenarios

Describe the four scenarios

Results

Present the heatmaps for each optimization scenario

Limitations of this Work

Discuss the issues with the weighted cost function

Future Work

Discuss all future work topics

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