

How many optimization patterns are out there?

A lot...no, really, don't try to imagine...A LOT





































































































































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 - Null sequences
 - Combine operations
 - Algebraic laws
 - Special case instructions
 - Address mode operations
 - ...

- Loop optimisations
 - Fission
 - Fusion
 - Interchange
 - Inversion
 - Loop-invariant code motion
 - Parallelisation
 - Scheduling
 - ...

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- Global optimisations
 - Common subexpression elimination
 - Constant folding and propagation
 - Induction variable recognition and elimination
 - Alias classification and pointer analysis
 - Dead store elimination
 - ...
- Many others
 - Bounds-checking elimination
 - Branch offset optimization
 - Code-block reordering
 - Dead code elimination
 - Factoring out of invariants
 - Inline expansion
 - Stack height reduction
 - ...

Let's measure the function `myFastFunction()`

Let's write a synthetic benchmark for it!