

Introduction to Haskell

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LvivHaskell

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- Pure functional
- Lazy
- Statically typed
- With strong types and type inference
- Compiled (with an interpreter)

Why learn Haskell

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- Familiarize yourself with FP before everyone else
- Write programs (ecosystem is surprisingly good)

It's a good language

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- Reliable

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- Easy to support

- Compilers

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- Program is an expression rather than a list of instructions

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- Parallelism

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Useful for:

- Equational reasoning
- Refactoring
- Parallelism
- Easier reasoning

- User-defined control structures

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- Efficient functional programming for free (e.g. efficient higher-order functions)

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- However, sometimes it makes things more complicated

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- Many more
- $\text{FP} + \text{Types} = \text{Win}$

Let's jump right in

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- Treap a.k.a. randomized binary search tree
- Regular expression engine

`https://www.haskellstack.org`

End

Thanks for your attention!