# Functional programming

Ivan Trepakov

NSU Sys.Pro

## What is this course about?

#### **Themes**

- Haskell
- Lazy evaluation
- Wholemeal programming
- Using types to your advantage
- Abstraction
- λ-calculus
- Combinatory logic
- Compilation and execution of functional languages
- GHC internals

## Organization

#### Structure

- 16 weeks, 2 classes per week
- 3 modules
  - Introduction to Haskell (6 weeks)
  - Functional abstractions (6 weeks)
  - Functional models of computation (4 weeks)
- ~10 homework assignments (10 points each)



https://sys.pro/courses/haskell

## Organization

### Grading

- Final grade is assigned either based on points for homework assignments
  - ▲ 70+ points in total (6+ in each homework)
  - B 60+ points in total (3+ in each homework)
  - **C** − 50+ points in total
- Or by passing grading theory test consisting of
  - 2 random guestions from different modules
  - 1 random exercise from homework assignments
- Students wishing to improve grade based on homework points may pass theory test instead
  - In that case their grade from theory test will be the final grade

# Q&A