## Haskell

I really enjoyed programming the purest functional language Haskell. I found it very powerful in different ways such as laziness, lambda expressions, and arrow notation, type classes, the expressive type system, and a template too. I also noticed list comprehensions technique being really helpful which is also applied in several other goto-languages like python. In the same way, the intriguing fact was that I used recursion to define some simple math functions because there are no mutable variable assignments in Haskell. Just like in Erlang and Scala, I observed pattern matching and guards very convenient. So, I agree to the fact that Haskell is a very principled language with unique design coherent. I also had fun learning some of the advanced and new ideas such as multiparameter type classes, higher-rank types, first-class polymorphism, implicit parameters, GADTs, and type families. I am glad that I at least learned some theories like partially applied functions, lazy techniques (such as the ones I used with Clojure), and other. And, using Monads - I came to know that we'd provide a more natural imperative style for our program and process multiple possibilities. In addition to that, Haskell functions process one parameter at a time, using currying to support multiple arguments.

"Hard things easy and easy things hard" - I strongly agree with this quote. Just like other pure functional programming languages, I think Haskell also does the identical. That is, it was easy to tackle some hard problems whereas very difficult to do easy stuff such as dealing with I/O, state, and error handling. Furthermore, I didn't even consider learning those advanced theories to do certain things which are very easy to do in most of the used languages out there. I discovered Haskell demanding to learn because of its weird syntax. It took me a long time to even get the implementation of a step-by-step algorithm.

Therefore, I strongly believe that Haskell has fantastic power with it. And, I'd definitely use it when I need to build some pure programming model with a lot of advanced techniques of pure functional programming language.