CMPT 383 — Comparative Programming Languages

Administration and Intro

Anders Miltner
Today’s Schedule

• High level intuition on what this course is
  • Purpose & Learning Objectives
• Administrative Stuff
• Technical Content!
Focus for this course

- Haskell
  - Functional Programming
  - Fancy Types
- Rust
  - Fancy Memory Management
Why does this course exist?
Why do different programming languages exist?
So why have multiple programming languages?
And there’s also domain specific languages!

Don’t you see that the whole aim of Newspeak is to narrow the range of thought? In the end we shall make thoughtcrime literally impossible, because there will be no words in which to express it.
Why does this course exist?

Learning other paradigms makes you a better programmer
It's important to learn how to choose the best tool for the job
Maybe you'll work in a job where well-known paradigms aren't quite working
Maybe you'll want to design your own language in the future
Fun course
Administrative Stuff
Most Information Available on the Webpage!

https://www.cs.sfu.ca/~miltner/courses/current
Attendance and Online Policy

• No attendance policy

• Must be in-person for test days (or come to a make-up with a doctor’s note)

• I’m not recording lectures

• Message me if you miss a lecture, and need more material than the keynote slides, and I’ll find a relevant readings
Little About Anders

• Second Year at SFU
• Types Evangelist
• Primary language: OCaml
  • Like Haskell, but more practical because it’s not purely functional
• Work in program synthesis
Cite my Sources

I will be using some lecture materials from Yuepeng Wang, Greg Baker, and David Walker

When I use other people’s materials directly, I’ll cite them explicitly
Any Questions?