CSE 110A - Fundamentals Of Compiler Design

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Review - Warnings, Errors, Functional Equivalence

- Textbook
  - Borrows from Formal Language theory
  - Algorithms
  - Artificial intelligence (like in the 60s)
  - systems design
  - Computer Architecture
  - Programming Language specific theory

> An example of where this is important is instruction ordering, many CPUs can execute many instructions in parrallel if they are of a specific type. Modern compilers can reorder specific instructions to improve CPU efficiency. To know when this is possible, to recognize when this is faster, and to know when it is not possible all requires formal language analysis, good algorithms, and solid systems design to tie it together with the rest of the compiler.

> I kinda think the Pareto Principle is not really all that useful. Overall, if you write slow code universally the principle will be false, so you have to write *reasonable* code at minimum.

- Quiz review
  - Are warnings errors

    > No, lol

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