

NOTES: Optimization Theory

notes/optimization-theory.md

Optimization Theory

Eager

- Do work beforehand that you know you'll have to do

Examples:

- Speculative evaluation in microarchitectures
- `fread` reads more bytes into buffer than you request
- Page prefetching in web browser

Lazy

- Delay work that you're not sure you will have to do
- However, adds time to the **critical path**

Examples:

- `malloc` page allocation
- `fork` page table copy-on-write

Not examples:

- `fwrite` flushing (work will always have to be done, there's no chance it won't)