

COMP6991 24T1

Concurrency

Concurrency refresher

Concurrency going wrong

Example: `data_race.c`

Example: `DataRace.java`

Example: `data_race.py`

How can we fix it?

Example: `fix_race.c`

Example: `FixRace.java`

Causing a data race in Rust

Example: attempt 1-3

Solving the issue in Rust

Example: attempt 4

Solving lifetime issues

Example: attempt 4 fix 1-2

Another approach?

Example: attempt 5

Evil crime time

Example: `unsafe_race`

Wednesday
todo!("list");

- > **thread::spawn bounds**
- > **Scoped threads**
- > **Atomics**
- > **`move` closures**
- > **Poisoning**
- > **RwLock, briefly**
- > **Channels**
- > **Send / Sync**
- > **Rayon**