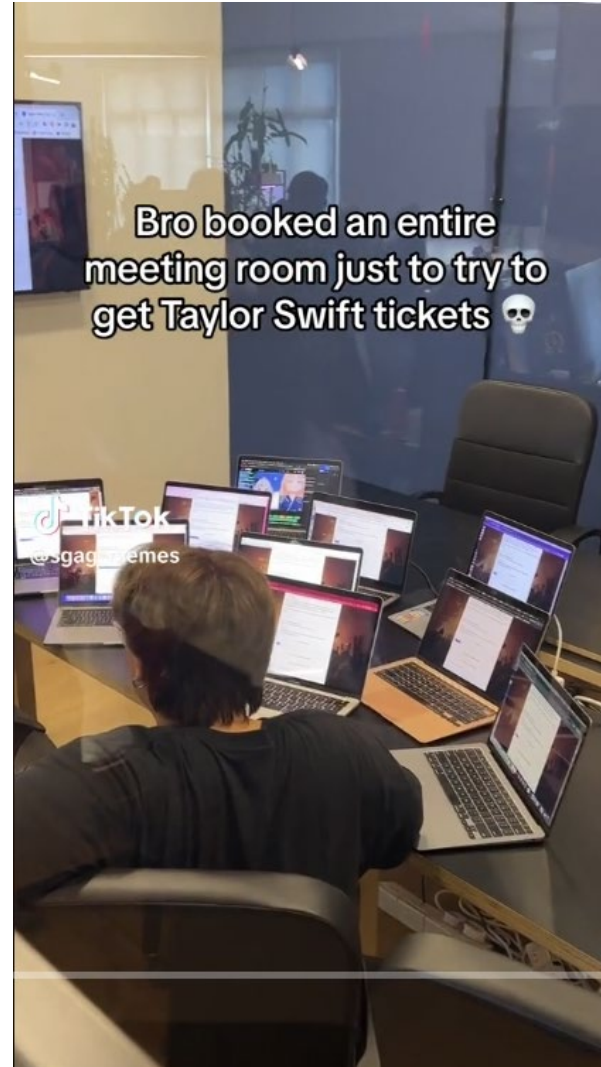# what a cruel summer

William's friends success stories:
- 2x VIP tickets
- 2x reserve seats tickets
- Queue number is 6 digits

COMP1511 Week 7!
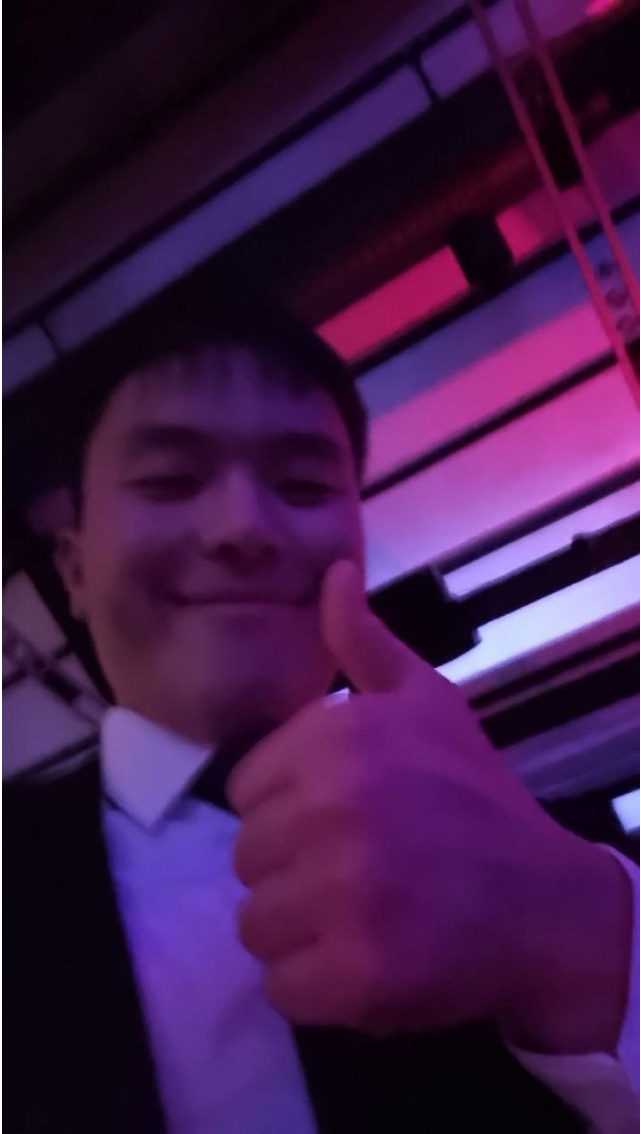
T14A: 2pm – 5pm

Tutors: Me + Vivian Zheng

My GitHub:

https://shorturl.at/zMTX5

EdStem Lessons:

https://shorturl.at/krtG9

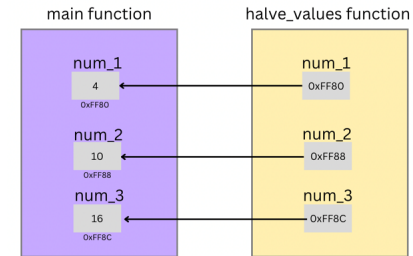# Well done on Assignment 1!

The Agenda

Pointers Usage (15 mins)

These will be your best friends

- Creating a pointer:
  - `int *x_ptr;`
- Storing the address of a variable:
  - `x_ptr = &x;`
- Accessing memory via a pointer:
  - `*x_ptr = 3;`
  - `printf("%d", *x_ptr);`

Functions + Pointers (15 mins)

Note: only look at this after attempting halve_values()

Struct Pointers (10 mins)

C lore fact 240: the asterix is iffy

- This doesn't work:
  - `*struct_ptr.field_name`
  - Because of: `*(struct_ptr.field_name)`
  - And needs to be `(*struct_ptr).field_name`
- This works:
  - `struct_ptr->field_name`
  - And is in fact a wrapper for the above

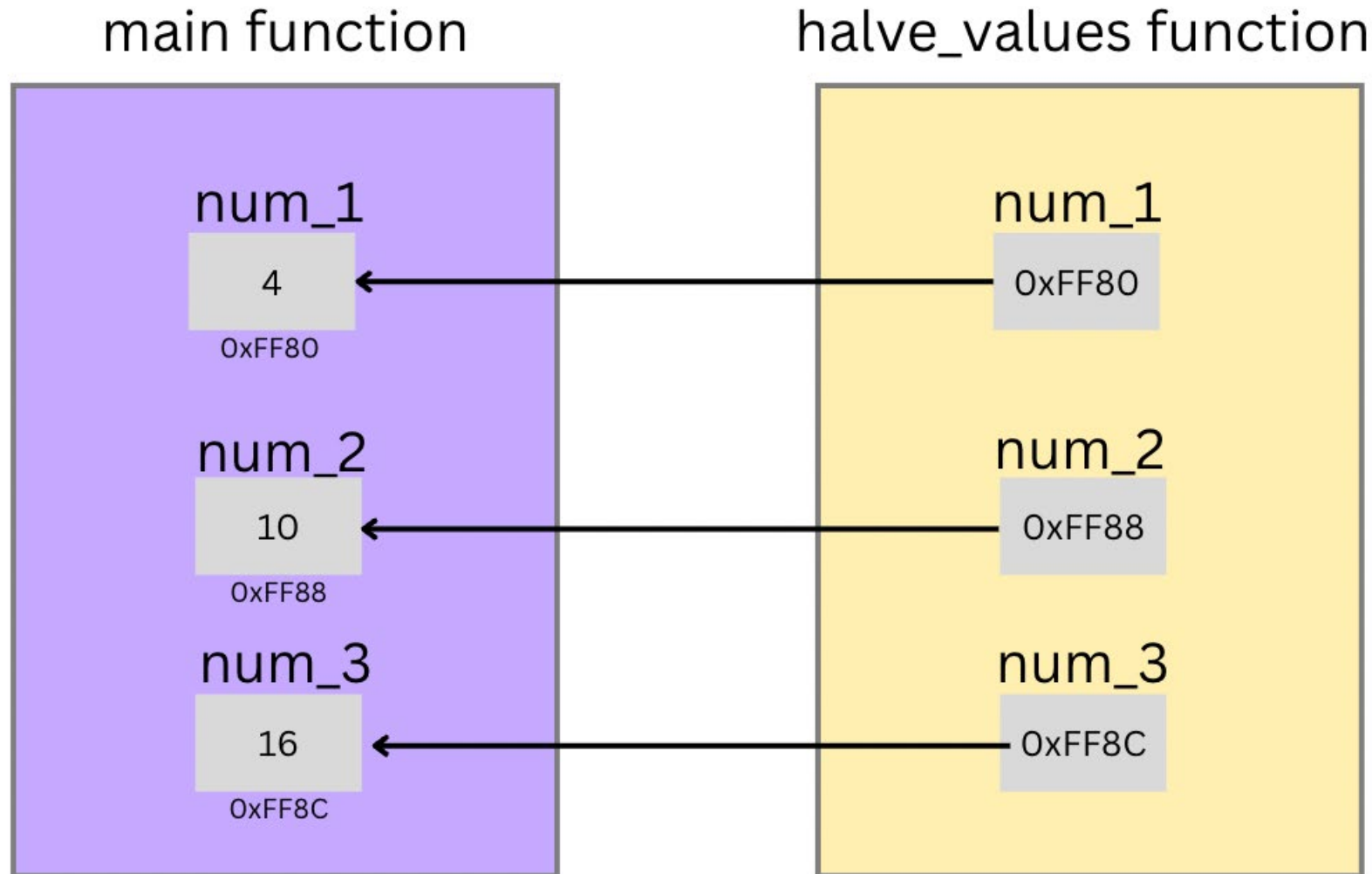## EOF Loops & CLAs (20 mins)

Note: only look at this after attempting EOF `fgets` loops

- `char` → `char[]`
- `scanf` → `fgets`
- `== 1` → `!= NULL`
- `printf("%c")` → `printf("%s")`

- Please don't use: `scanf() == EOF`

These will be your best friends

- Creating a pointer:
  - `int *x_ptr;`
- Storing the address of a variable:
  - `x_ptr = &x;`
- Accessing memory via a pointer:
  - `*x_ptr = 3;`
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C lore fact 240: the asterix is iffy

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- char → char[]
- scanf → fgets
- == 1 → != NULL
- printf("%c") → printf("%s")

- Please don't use: `scanf() == EOF`

CLA == Command Line Arguments
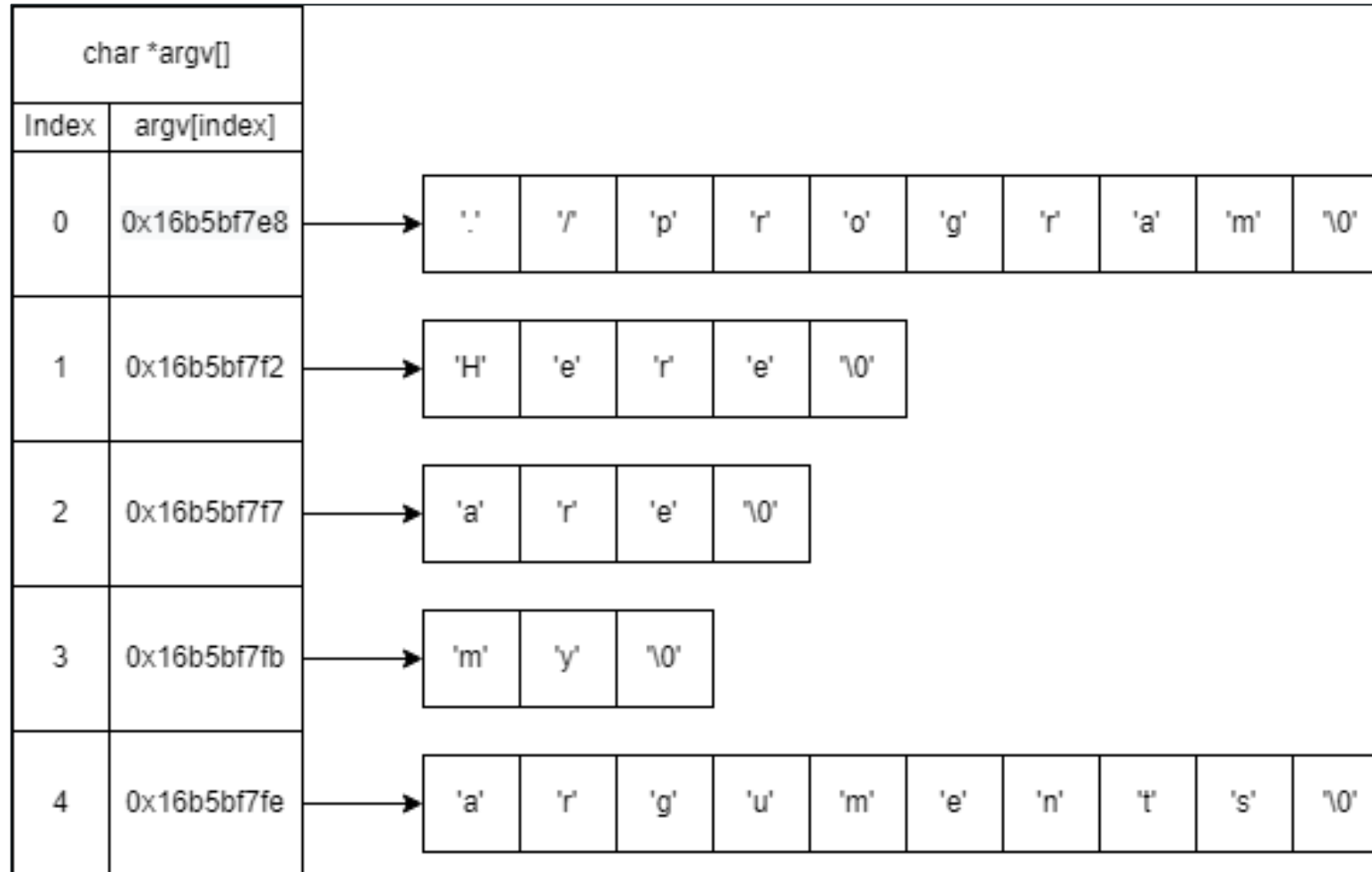
```
int main(int argc, char *argv[]) {
```

"argument count"

"argument vector"

Note: only look at this after attempting CLA exercise

VSCode Shortcuts

- Start with Ctrl+Shift+P
  - "Toggle Multi-Cursor Editor"
  - Convert text casing: (highlight text) → Ctrl + Shift + P → "Transform to ..."
- Multiple Cursors: Ctrl + Click anywhere
  - Cursor over multiple lines vertically: Shift + Alt + Click on line
- Duplicate Line: Ctrl + Shift + Alt + Up/Down Arrow
- Move Lines: Alt + Up/Down Arrow
- Change All Occurrences: Ctrl + Shift + L or Ctrl + D
- Indentation: (Highlight line/lines) → Ctrl + Left/Right Square Bracket
- Find and Replace: Ctrl + F → (click dropdown) → Replace next