

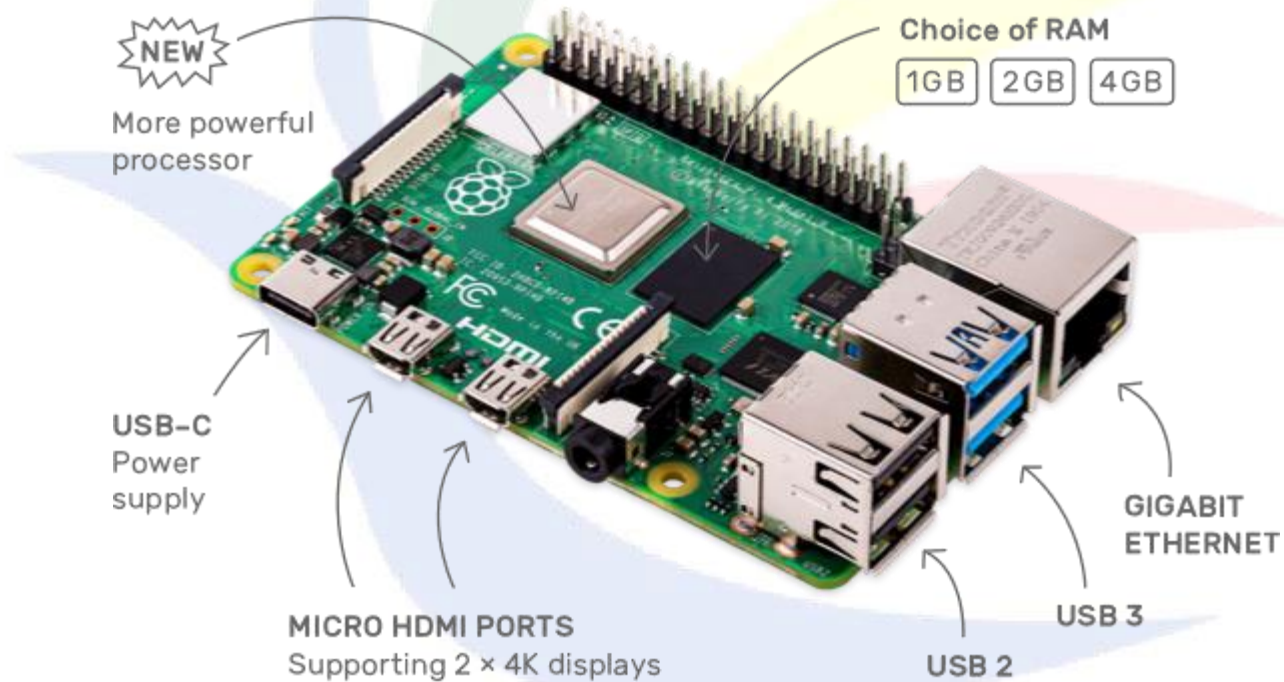


# 專題製作題目說明

白宏達 教授

國立臺北大學通訊工程學系

# Raspberry Pi



# Raspberry Pi

## Raspberry Pi 4

Your tiny, dual-display, desktop computer  
...and robot brains, smart home hub, media centre,  
networked AI core, factory controller, and much more



# Operating Systems



Raspbian



Ubuntu MATE



Core

Ubuntu Core



Ubuntu Server

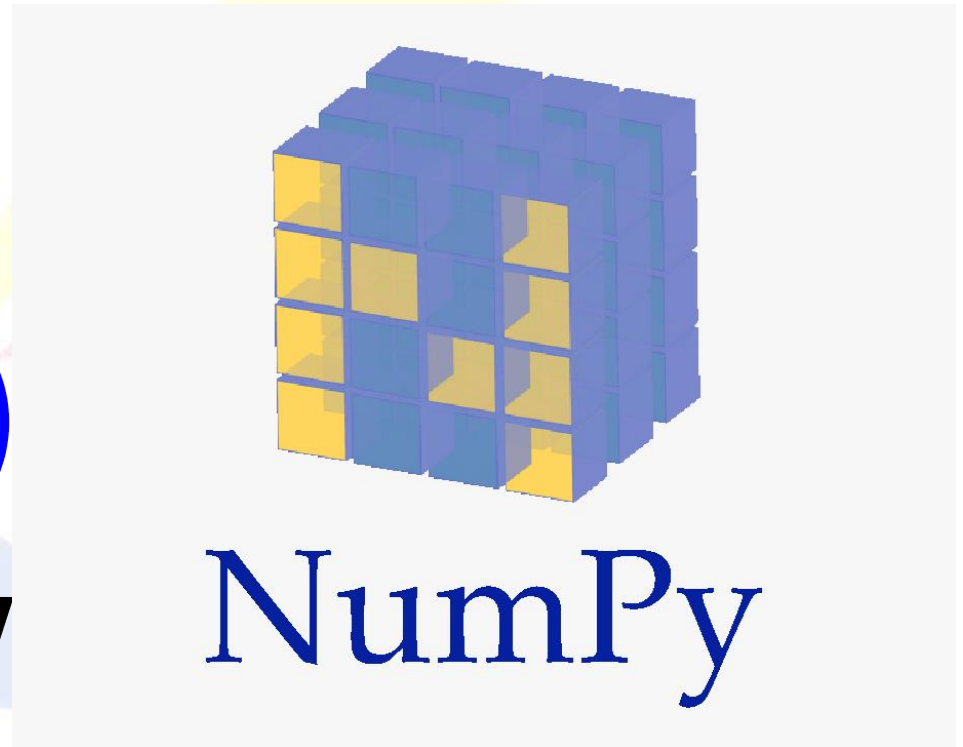


OSMC

Linux, mostly

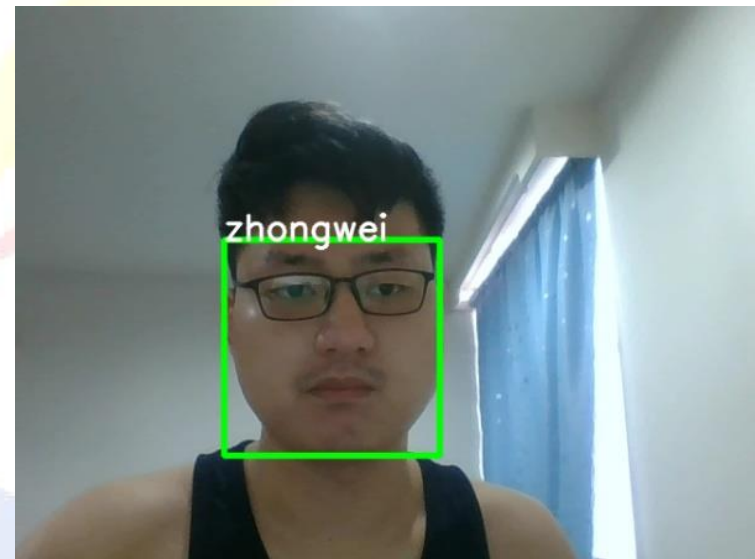
# Programming Languages

- C++ or Python



# Applications

- Face Recognition



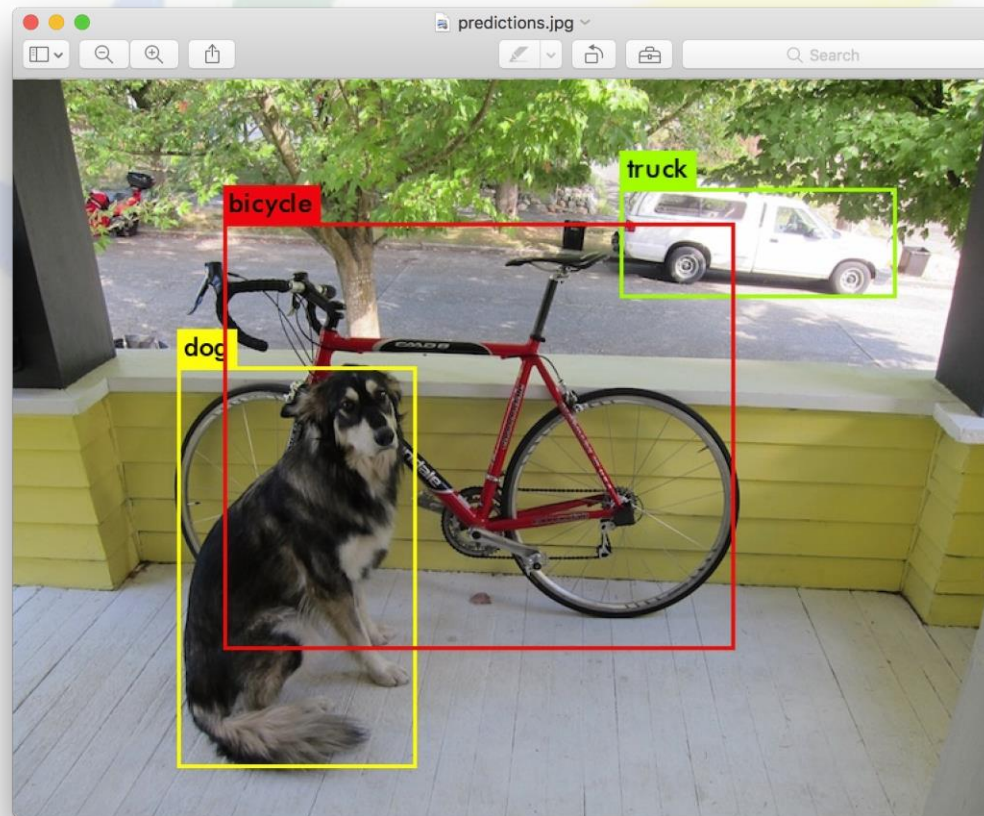
# Applications

- Speech Recognition



# Applications

- Object Identification







# Schedule

---

- Fall 2022: System setup
  - Make a portable Linux USB
  - Install Linux in Raspberry Pi
  - Come out with an idea
  - Plot a functional block diagram and make a plan
- Spring 2023: Application
  - Search related works
  - Install required software
  - Implement each block
  - Integrate all blocks and test the integrated system