

Computabilidad y Algoritmia

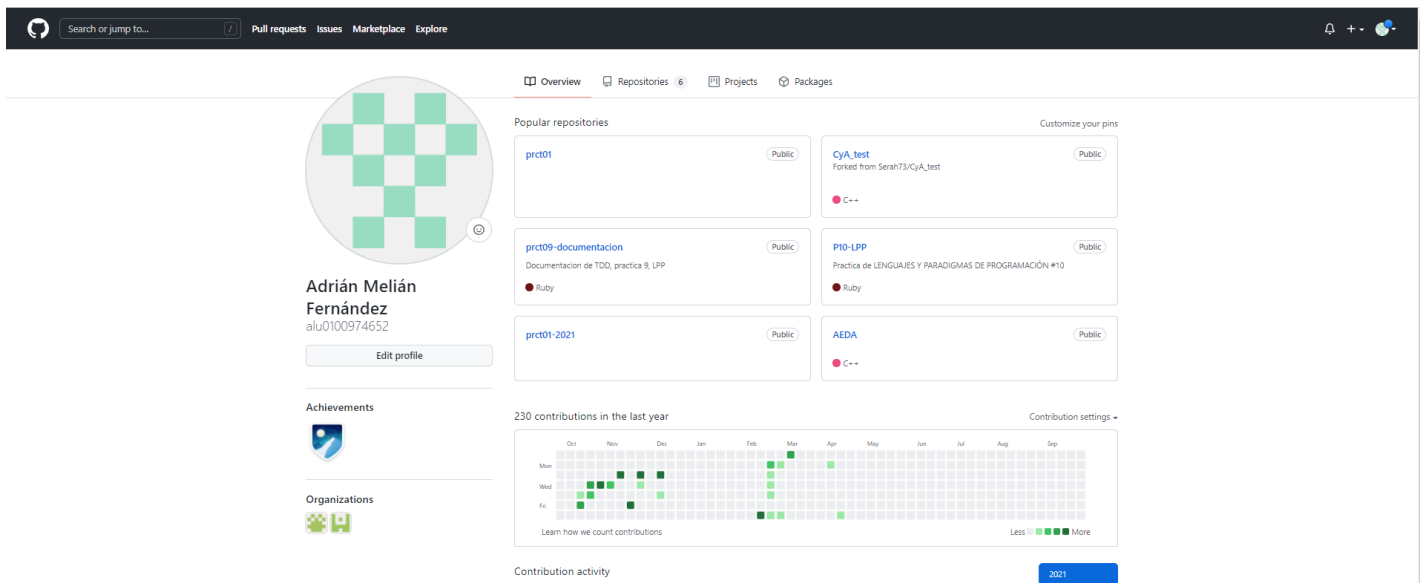
Informe Práctica 1: El entorno de trabajo IaaS para la asignatura

Apellidos y Nombre: **Melián Fernández, Adrián**

e-mail: alu0100974652@ull.edu.es

Dirección IP de la VM de la asignatura: 10.6.131.77

Imagen 1: Perfil de la cuenta de Github



The screenshot shows the GitHub profile of Adrián Melián Fernández (username: alu0100974652). The profile includes a custom avatar, a bio, and a list of popular repositories. The repositories listed are: prct01 (Public), CyA_test (Public, C++), prct09-documentacion (Public, Ruby), P10-LPP (Public, Ruby), prct01-2021 (Public), and AEDA (Public, C++). Below the repositories, there is a section for '230 contributions in the last year' with a calendar visualization showing contribution activity from October to September. The calendar shows a grid of days with green squares indicating contributions. The year 2021 is selected at the bottom right.



Imagen 2: Terminal en la que se muestra el acceso realizado a la VM y la ejecución del comando `ifconfig -a`

```
usuario@ubuntu:~$ hostname
ubuntu
usuario@ubuntu:~$ whoami
usuario
usuario@ubuntu:~$ ifconfig -a
ens3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.6.131.77 netmask 255.255.252.0 broadcast 10.6.131.255
    inet6 fe80::21a:4aff:fe97:7a12 prefixlen 64 scopeid 0x20<link>
    ether 00:1a:4a:97:7a:12 txqueuelen 1000 (Ethernet)
    RX packets 15733 bytes 201160035 (201.1 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 12498 bytes 1114718 (1.1 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 2489 bytes 508103 (508.1 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2489 bytes 508103 (508.1 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

usuario@ubuntu:~$
```



Imagen 3: Captura de pantalla del VSC que muestra la edición remota de un programa y el comando ejecutado en la terminal.

The screenshot shows the Visual Studio Code interface connected to a remote host via SSH. The Explorer sidebar on the left shows the file structure with 'hello_world.cc' open. The Editor pane displays the code for 'hello_world.cc', which includes a C++ program that prints 'Hello World!'. The Terminal pane at the bottom shows the execution of several commands: 'pwd' (returns /home/usuario/hello), 'ls -l' (lists files with permissions and sizes), and './hello_world' (executes the program, outputting 'Hello World!').

```
1 #include <iostream>
2
3 int main () {
4     std::cout << "Hello World!" << std::endl;
5     return 0;
6 }
```

```
usuario@ubuntu:~/hello$ pwd
/home/usuario/hello
usuario@ubuntu:~/hello$ ls -l
total 24
-rwxrwxr-x 1 usuario usuario 17328 Oct  2 12:28 hello_world
-rw-rw-r-- 1 usuario usuario   96 Oct  2 12:25 hello_world.cc
usuario@ubuntu:~/hello$ ./hello_world
Hello World!
usuario@ubuntu:~/hello$
```

Imagen 4: Terminal de linux mostrando el proceso de establecimiento de conexión con la VM-laaS

The screenshot shows a terminal session on a local machine (DESKTOP-A6RT54H) where an SSH connection is being established to a remote host (10.6.131.77). The user 'adrianubu' runs 'hostname', 'whoami', and 'ssh usuario@10.6.131.77'. The terminal output shows the SSH process, including the warning about the host's fingerprint and the successful login. After the login, the terminal displays system information, including system load, memory usage, and available updates.

```
adrianubu@DESKTOP-A6RT54H:/mnt/c/Users/adria$ hostname
DESKTOP-A6RT54H
adrianubu@DESKTOP-A6RT54H:/mnt/c/Users/adria$ whoami
adrianubu
adrianubu@DESKTOP-A6RT54H:/mnt/c/Users/adria$ ssh usuario@10.6.131.77
The authenticity of host '10.6.131.77 (10.6.131.77)' can't be established.
ECDSA key fingerprint is SHA256:w1NR1Pj6bJ1W14R9URVfbALfb/T4akPSJb0dgPN9lzY.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.6.131.77' (ECDSA) to the list of known hosts.
usuario@10.6.131.77's password:
Welcome to Ubuntu 20.04.3 LTS (GNU/Linux 5.4.0-81-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sat Oct  2 12:39:23 UTC 2021

System load:  0.7               Processes:            159
Usage of /:   39.4% of 19.56GB   Users logged in:     1
Memory usage: 11%              IPv4 address for ens3: 10.6.131.77
Swap usage:   0%

38 updates can be applied immediately.
22 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Last login: Sat Oct  2 12:09:58 2021
usuario@ubuntu:~$
```