

# JACK O'SULLIVAN



## CURRICULUM VITAE

GITHUB DEVPLAYER0  
EMAIL J@CKOS.IE  
DATE OF BIRTH 2ND OF JULY 1998  
LOCATION BLACKROCK, DUBLIN



## EDUCATION

**SECONDARY**  
KILKENNY COLLEGE  
(2011 - 2017)

**UNIVERSITY**  
COMPUTER SCIENCE  
TRINITY COLLEGE DUBLIN (2017 - PRESENT)  
GRADES: FIRST YEAR: I (FIRST), SECOND YEAR: I (FIRST)



## PROJECTS

**CV OS** CVos "converts" a PDF into a bootable disk image (based on Linux) which can view itself - while remaining usable as a PDF! This very CV can be booted on bare-metal or in a virtual machine, using either MBR or UEFI. This is possible since the PDF header only needs to appear within the first 1024 bytes. See Github for more.  
 devplayer0/cvos

**HOMELAB**  
Collection of hardware running a 'home' network (primarily from a Dell R710) with services including a custom-built Linux router (nftables + BIND + ISC DHCPD), Ubiquiti AP, 10 gigabit networking, NFS, Kerberos, SMB, CUPS, PXE booting, a Matrix homeserver and Jellyfin media server amongst others. Powered by Alpine Linux, virtualisation via libvirt with KVM and containerisation with Docker and LXD.



## DOCKER DHCP PLUGIN

Docker plugin providing a network driver which allocates IP addresses (IPv4 and optionally IPv6) via an existing DHCP server (e.g. a router). When configured, can allow a container to be accessed on an existing network like any other box. Used extensively in homelab.  
 devplayer0/docker-net-dhcp

## WEBSITE-NG

Platform for containerised webspaces. Webspaces allow members of a community (such as a university) to host their website on shared infrastructure. Traditionally, a subdirectory is provided to each user with support for some server-side scripting (e.g. PHP). website-ng brings the website idea into the modern era with every user getting a VM-like container (provided by LXD). SSL is fully supported with SNI-based transparent proxying, or via SSL termination on the default subdomain.  
 netsoc/website-ng

## SOCKIT

Sockit provides a Lua firmware (using NodeMCU) and a Flutter-based app for controlling a smart socket which is powered by an ESP8266 micro-controller. It was designed for use with the Sonoff range of products and enables zero-configuration usage using multicast networking (once WiFi details have been saved).  
 devplayer0/sockit

## OPENET

**2018 INTERNSHIP** Three month summer internship as a member of the Labs team. Significant role realising the design of Openet's new 5G platform, upon which upcoming products are based.

**2019 INTERNSHIP** A further three months, this time on a core engineering team designing and building a key 5G component based on the new platform built in 2018.

## TECH SKILLS

### PROGRAMMING EXTENSIVE KNOWLEDGE

Java	Python	
Assembler	C	
Rust	HTML & CSS	
Dart	Unix shell	Lua

### TOOLS / FRAMEWORKS A WIDE RANGE



### SYSADMIN SIGNIFICANT OS EXPERIENCE

Extensive experience managing numerous systems running Arch Linux for approximately 4 years, Debian and Ubuntu in years prior. Very familiar with use of the command line.

Power user of Microsoft's operating system for many years, some experience with Active Directory. Experience using command line (including some PowerShell).

**macOS** Built and maintained a Hackintosh (regular PC running Apple's OS) for over a year.

## ACHIEVEMENTS

**ECSC 2019**  
EUROPEAN CYBERSECURITY CHALLENGE - TEAM IRELAND MEMBER

**BSIDES BELFAST CTF**  
2018 AND 2019 2ND PLACE WINNER

**ZERODAYS CTF**  
OVERALL WINNER (TCD TEAM) - 2018 AND 2019

**HACKTRINITY CTF**  
2018 OVERALL WINNER AND 2019 PRIMARY CHALLENGE DESIGNER

**BTYSTE 2015**  
INDIVIDUAL RUNNER-UP AND GOOGLE AWARD

**APPS4GAPS 2014**  
BEST WORKING APP AND OVERALL WINNER

## EXPERIENCE

### TRINITY COLLEGE DUBLIN NETSOC (SOCIETY)

Committee member (general officer in 2017-18, webmaster in 2019). Junior sysadmin from early 2018, primary sysadmin since 2019. Responsibilities include managing Netsoc's online presence, as well as managing a number of physical servers located in TCD and their services (LDAP, webspaces, mail etc.)