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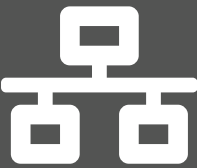
Docker plugin providing a network driver which allocates IP addresses (IPv4 and optionally IPv4) via an existing DHCP server (e.g. a router). When configured, can allow a for container to be accessed on an existing network like any other box. Used extensively in homelab.

🐙 *devplayer0/docker-net-dhcp*

WEBSPACE-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). webspace-ng brings the webspace 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/webspace-ng*

HACKTRINITY 2020

HackTrinity is a beginner to intermediate "CTF" competition for university students. The latest edition featured all-new infrastructure with instanced challenges in Docker Swarm deployed across over 20 servers and attracted more than 300 participants from universities across the island of Ireland. See https://hacktrinity.org to for more details and to have a go at some of the challenges!

🐙 *hacktrinity/**

TECH SKILLS 🔧

PROGRAMMING
EXTENSIVE KNOWLEDGE

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

TOOLS / FRAMEWORKS
A WIDE RANGE

VERT.X · Vim · LaTeX · MikroTik · kdenlive · MySQL · Docker · LXD · træfik · NGINX · GHIDRA · libvirt · pf

SYSADMIN
SIGNIFICANT OS EXPERIENCE

Extensive experience managing numerous systems running Arch Linux for approximately 5 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 ✳️

HACKTRINITY CTF
2018 1ST PLACE WINNER, 2019 CHALLENGE DESIGNER, 2020 ORGANISER / PRIMARY CHALLENGE DESIGNER / PLATFORM ARCHITECT

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

BTYSTE 2015
INDIVIDUAL RUNNER-UP AND GOOGLE AWARD

APPS4GAPS 2014
BEST WORKING APP AND OVERALL WINNER

EXPERIENCE 💼

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.

TRINITY COLLEGE DUBLIN
NETSOC (SOCIETY)
Committee member (general officer in 2017-18, webmaster in 2019 and 2020). 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.)