

Amar Lakshya



“A Chemical Computer computing on Digital Computers”

Work Experience

Feb 2022 - Present

Software Engineer (Media): *Veracity (Manchester, UK - Remote)*

- Working on Network Video Recording (NVR) systems using C++20, FFmpeg across multiple hardware architectures (x86, ARM, PowerPC).
- Contributing to security focused projects using OpenSSL, FIPS, and aligning with security based certifications like MISRA C++.
- Developing features across multiple Operating Systems (Windows, Linux).
- Extending NVR features to support ONVIF and AXIS based client devices.
- Working on extending ONVIF protocol support.
- Collaborated to extend CI server features to validate pipelines using provenance and adding vulnerability testing.
- Experienced in working with testing and mocking frameworks (Catch2, trompeloeil), async libraries, boost libraries and compilers (gcc, clang, msvc).

Sep 2020 - Feb 2022

Software Engineer: *Sky Drones (Birmingham, UK - Remote)*

- Worked on Command and Control software and hardware platforms for quad-copter drones using C++14, Python, Bash, Travis, and Qt5.
- Contributed to features like route planning and movement simulation.
- Made fundamental contributions to LiDAR capabilities in the drones by writing C based kernel drivers for multiple LiDAR hardware units.
- Used QEMU extensively for Research & Development.
- Worked on developing the MacOS based application port.

Sep 2018 - Feb 2019

Systems Engineer (Lead): *Nymble Labs (Bangalore, India)*

- Revamped the entire software architecture to produce reliable, clean OOP code.
- Implemented the next iteration of the product using C++ 14, ROS2 and Qt5.
- Worked extensively with multiple hardware platforms and aided in narrowing the platform required for the completion of the hardware product.

Projects & Contributions

Jan 2023

Neotest-Catch2 :



- A catch2 test adapter for the Neovim text editor.

Apr 2020

Logi's Circle of Security :



- An in-depth penetration test conducted on Logitech's Circle camera.

Oct 2019

FOS - Made to be Open :



- A Monolithic UNIX-like Kernel for the x86 and ARM (Raspberry Pi) platforms with ELF Parsing, PCI, Serial (ARM), Western Notes for PC Beeper and System Calls.

Sep 2018

Cache patches (Core), Mozilla Contribution :



- Patches to the cache entries that expire immediately in the Cache core of Mozilla codebase.

Mar 2017

Study Of Captchas :



- A study of CAPTCHA systems present on The Election Commission Of India's websites across all the states in India.

Publications & Certifications

Aug 2019

CompTIA Security+ Certification :



- Earners of the CompTIA Security+ certification have the knowledge and skills necessary to perform core security functions required of any cybersecurity role.

Jan 2015

Crossed & Knotted :



- Co-Author of India's First Composite Novel - written in collaboration with 12 Authors.

Education & Skills

Sep 2019 - Sep 2020

MSc. Cyber Security
University Of Birmingham, UK
Distinction

Programming Languages:



Operating Systems:



Applications & Frameworks:



Databases:



Jul 2014 - Jul 2017

BSc. Information Technology
St. Xavier's College, India
First Class