Amar Lakshya

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'A Chemical Computer computing on Digital Computers'

Projects & Contributions

C

fOS - Made to be Open : *github.com/amar-laksh/fOS*

- A Monolithic UNIX-like Kernel for the x86 and ARM (Raspberry Pi) platforms.
- ELF Parsing(with kernel parsing), PCI, Serial (ARM), Western Notes for PC Beeper and System Calls.
- Fully Functional Support for GPIO Pins (ARM) wrapped as Arduino-compatible functions.

TryingToKnowYouBetter : *github.com/amar-laksh/TryinToKnowYouBetter*

- The Indian Election Commission's website leaks data that can be analyzed to effectively locate all registered voters.

study of captchas : *amar-laksh.github.io/2017/03/16/CAPTCHAs-on-ceo-sites.html*

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

Cache patch (Core), Mozilla Contribution : *git log | grep amar on codebase*

- Worked on patching cache entries that expire immediately in the Cache core of Mozilla codebase.
- Affects all Mozilla programs including Firefox and Thunderbird.

Vitae : *github.com/amar-laksh/vitae*

- An Esoteric, Interpreted python-built language built entirely with regular expressions.
- Designed to introduce non-technical people to programming.

Replaycer : *addons.mozilla.org/en-US/firefox/addon/replaycer*

- A fun Browser Add-on to replace content on the web.
- Able to replace live content like twitter feeds etc.

FocusTV : *github.com/amar-laksh/focustv*

- An extremely responsive face detection system which automatically pauses Media(YouTube and VLC Media Player) when you aren't looking.

Work Experience

Sept 2018 - Feb 2019 Systems Engineer (Lead): *Nymble Labs (Bangalore)*

- Revamping the entire software architecture to produce reliable, clean OOP code.
- Implementing the next iteration of the product using C++ 14, ROS2 and Qt5.

Dec 2017 - July 2018 Software Engineer - Intern: *Nymble Labs (Bangalore)*

- Designed a ROS2 based distributed software architecture of the system
- Designed an extensible Flask-based Web REST API for third-party devices.
- Designed coding standards and setup guidelines.
- Wrote the initial iteration of the software architecture in C++ 14.
- Wrote a Qt5 based display application for the on-board display.

July 2017 - Sept 2017 Junior Developer (Linux) - Intern: *Apogee Tech Global Inc. (Bangalore)*

- Designed a cross-platform architecture for the Internet Security Suite
- Implemented the application on Windows, Mac, & Linux using Electron, React and Redux
- Created the backend functionalites using Python, Bash, and Ruby.

Publications & Certifications

2019   CompTIA Security+ Certification *: youracclaim.com/badges/3ed437c4-0623-4e26-bdc7-4b9c58fc8bab*

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

2015   Crossed & Knotted *: amazon.in/Crossed-Knotted-Various-Authors/dp/8192997529*

- *Co-Author of Limca Book of Records winning - India's First Composite Novel - written in collaboration with 12 Authors.*

2017   Beyond Good and Evil *: amar-laksh.github.io/2017/06/17/beyond-good-and-evil.html*

- *A paper focusing on the futility of recognizing Good and Evil as deterministic forces in the world.*

Education

Msc. Cyber Security, *- 2019-2020*
University Of Birmingham, *Birmingham, UK*
Modules taken:

- *Cryptography*
- *Intelligent Data Analysis (Extended)*
- *Operating Systems(Extended)*
- *Designing secure systems*
- *Forensics and Malware Analysis*
- *Hardware and Embedded Systems Security*
- *Network Security (Extended)*
- *Penetration Testing*
- *Secure programming*
- *Secure system management*
- *Security Research Seminar*
- *Research project*

BSc. I.T., 3.26/4.00 *- 2014-2017*
St. Xaviers College, Mumbai - Autonomous
Modules taken:

- *Applied Mathematics*
- *C++ Programming*
- *Operating Systems*
- *Computer Graphics*
- *Network Security*
- *Artificial Intelligence*
- *E-Commerce*
- *Data Warehousing and Mining*
- *Embedded Systems*
- *Advanced SQL*
- *Advanced Java*
- *C# with ASP.NET*
- *Software Testing*
- *Enterprise and Resource Planning*
- *Research project*

Positions Of Responsibility

2014 - 2017   Class Representative*: St. Xaviers College, Mumbai - Autonomous*

- *Worked to organize events like seminars and workshops for the BSc. I.T. batch.*

2015   Public Relations Volunteer - Xenith*: St. Xaviers College, Mumbai - Autonomous*

- *Worked on coordinating and organizing of Public Relations at different colleges for the IT Department Festival.*

2014   Founding Core Member of the IT Club*: St. Xaviers College, Mumbai - Autonomous*

- *Worked on designing and ideation of the IT Department Festival.*

Technology Skills Acquired

Programming Languages*:*

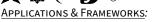Operating Systems & Distributions*:*

Applications & Frameworks*:*

Databases*:*

References

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