

Awais Chishti | CV

Nationalities: USA, Pakistan

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🔗 <https://github.com/phymod0>

Education

Bachelor of Science in Computer Science
CGPA: 3.640/4.0 (unofficial transcript [here](#))

Lahore University of Management Sciences
2015 ⇒ 2019 (expected)

Notable projects

Academic

MegaVM | July 2017 ⇒ Now, Lahore University of Management Sciences

(Increasing VM performance by enabling a hypervisor to leverage the resources of multiple machines)

- Wrote kernel modules managing page faults to coordinate page accesses in a network of machines.
- Provided a consistent abstraction of shared virtual memory to processes running on different physical hosts.
- Fixed memory-related issues in a separate module of the project for distributing memory over RDMA.

Program Analysis project | Oct ⇒ Dec 2017, Lahore University of Management Sciences

(Reducing the image size and attack surface of an embedded OS for predefined hardware platforms)

- Wrote LLVM passes to guess platform-dependant function inputs and to hard-code them for optimization.
- Reduced [Contiki OS](#) by approximately 100 ROP gadgets and 5% of its image size, preserving functionality.

Open source

- VLC contributor: [Patched](#) and [identified](#) errors in the VLC source code.

Personal

- [Tool](#) to generate passwords derived from a given set of words in order of statistical likelihood.
- Offline lightweight [web application](#) for wireless routers to manage the attendance of connected people.
- [DNS interceptor](#) for routers to monitor links visited by clients and upload them to a configured server.

Skills

Technical

Good command of C developed over 7+ years. Experience with C++, Linux, Kernel programming, Python and Vim.

Communication

- Trained and lectured students for 4 [International Mathematical Olympiad](#) events on more than 10 occasions.
- Worked as a teaching assistant for 2 courses of batch sizes 185 and 206.

Achievements

Competitive programming

February Circuits '19

[Rank 20](#) among 9,000+ contestants

HackerEarth

February 2019

March Challenge 2019

[Rank 33](#) among 12,500+ contestants

CodeChef

March 2019

Olympiads

56th International Mathematical Olympiad

Bronze Medal

Chiang Mai, Thailand

2015

55th International Mathematical Olympiad

Bronze Medal

Cape Town, South Africa

2014

XXVI Asian Pacific Mathematical Olympiad

Bronze Medal

2014