**Ali Hassan Ahmed Khan**

**Nationality:** Pakistani **Date of birth:** 19/05/1998 **Gender:** Male

**Phone number:** (+92) 3362105060

**Email address:** [alihasanahmedkhan@gmail.com](mailto:alihasanahmedkhan@gmail.com)

**LinkedIn:** <https://www.linkedin.com/in/ali-hasan-ahmed-khan-3a7333136/>

**Stack Overflow:** <https://stackoverflow.com/users/12460195/ali-hasan-ahmed-khan>

**Github:** <https://github.com/alihasanahmedkhan>

**Linux Foundation:** <https://openprofile.dev/profile/alihasanahmedk>

**Home:** House No#42, Block 8 Azizabad, F.B Area, 12311 Karachi (Pakistan)

**ABOUT ME**



Certified Kubernetes Administrator (CKA) | DevOps | Linux | Docker | Kubernetes

My love for technology has motivated me in every step of my career. In the new phase of my life, I hope to take the right direction in fulfilling my passion for technology.

**SUMMARY**



**Experience Summary**

* Certified Kubernetes Administrator.
* Firm grip on DevOps Tools.
* Four years of hands-on experience in Linux.
* Two years of professional experience in Python and Bash scripting.
* One year of professional experience in C and kernel-C Language.
* Learning Canonical Kubernetes, MAAS, JUJU.
* Preparing for AWS Certifications.

**Open-Source Contribution**

* Served with ovn-kubernetes. (https://github.com/ovn-org/ovnkubernetes/pull/2789)
* Reported a bug in the Libvirt utility. (https://gitlab.com/libvirt/libvirt/-/issues/223)
* Served with rss\_simulator\_nvidia (https://github.com/noamsto/ rss\_simulator\_nvidia/pull/1)
* Contributed to an open-source GitHub repo. (https://github.com/moabukar/Everything-Tech)
* Submitted the patch to PyPI's project pywedge. (https://github.com/taknev83/pywedge/pull/ 3#issuecomment-979186325)
* Contributing for three years to an open-source community Stack Overflow.
* Contributed to RISC-V open-source python-based project. (https://github.com/merledu/Merl-UIT-Simulator) (https://merledupk.org/merl-teams.php)

**WORK EXPERIENCE**



**DevOps Engineer - Lead**

***Conure Telecom Services LLC*** [ 19/09/2022 – Current ]

**City:** Karachi

**Country:** Pakistan

1. Designed and Deployed the Infrastructure from scratch with High Availability and Disaster Recovery support using Proxmox.
2. Managing the application deployment stack (Java, Spring Boot, Angular, Nodejs, and Python) on VMs and Containers.
3. Deployed alert service using Signal API and made a new API to trigger signal API on failure using FAST-API.
4. Managing the URLs, and SSL/TLS certificates using NGINX PROXY.
5. Optimizing the Conure application's architecture level flow.



1 / 4



1. Fixing the bugs in Conure applications.
2. Managing CI/CD pipeline on Jenkins and Setup full CI/CD pipelines so that each commit a developer makes will go through the standard process of the software life-cycle and get tested well enough before it can make it to production.
3. Managing MongoDB installation, troubleshooting, performance tuning, monitoring, backup, and recovery.
4. Deployed the MongoDB cluster with Authorization and High availability.
5. Deployed the MariaDB cluster with Authorization and High availability.
6. Deployed the Ceph cluster with High availability.
7. Writing bash and python scripts to overcome the day-to-day server issues.
8. Preparing the development environment across multiple servers using Ansible.
9. Research and Development on new technology that fits in our Infrastructure.

**Software Engineer**

***DreamBig Semiconductor Inc.*** [ 16/10/2020 – 16/09/2022 ]

**City:** Karachi

**Country:** Pakistan

1. To manage and classify the traﬃc of the SmartNICs using TC Flower.
2. Investigate all the Open Virtual Switch-fields and Open Virtual Switch-actions and test each of them in Mellanox and Netronome NIC.
3. To create the scripts that automate the setup of the environment for Open Virtual Switch testing and Bring up Mellanox and Netronome SmartNICs.
4. Investigate and understand the Mellanox source code that how it works and find the parameters that help me to understand, how Mellanox is working with OVS, and TC, and how it handles the incoming and outgoing packets.
5. Implement Various Linux virtual tunnels with Mellanox using Linux Stack such as VLAN, VXLAN, GRE and etc.
6. Implemented the whole CI pipeline on Gitlab CI/CD.
7. Set up full CI/CD pipelines so that each commit a developer makes will go through the standard process of the software life-cycle and get tested well enough before it can make it to production.
8. Hands-on experience in managing virtual hosts using Virt-Manager.
9. Configure and set up the OpenStack for network and VM creation with SRIOV and PCI passthrough.
10. Implemented the OVS actions in DreamBig's SmartNIC using Kernel C language.
11. Worked on Docker containers with SRIOV and OVS.
12. OVS with Distributed Systems.
13. OVS with Kubernetes.
14. Configure servers for OVS using ansible

**Penetration Tester**

***TryHackMe*** [ 01/11/2020 – Current ]

1. Practice my Cybersecurity skills on diﬀerent given VMs.
2. Learn and practice the tools that are helpful for hacking.

**Software Intern**

***DreamBig Semiconductor Inc.*** [ 27/07/2020 – 27/09/2020 ]

**City:** Karachi

**Country:** Pakistan

1. Learned how to write kernel modules of Linux and how to insert the modules in the kernel or remove the modules from the kernel.
2. Learn how to create Makefile for compiling C modules for the kernel.
3. Learned how to set up a Virtual Machines connection using Open Virtual Switch.
4. Learned how to upgrade and downgrade the Linux kernel.

**Research Assistant**

***Micro Electronic Research Laboratory*** [ 01/05/2019 – 30/09/2020 ]

**City:** Karachi

**Country:** Pakistan



2 / 4



My responsibility is to make a Web-based RISC-V Instruction Set Simulator using Python-Django for the verification of the RISC-V cores.

**Developer (Volunteer)**

***Stack Overflow*** [ 01/09/2019 – Current ]

**City:** Karachi

**Country:** Pakistan

My responsibility is to solve the issues that are related to technology tools, domains, Networking, Linux, programming languages.

**Volunteer**

***Ladiesfund Women’s Awards 2018*** [ 08/08/2018 – 10/08/2018 ]

**City:** Karachi

**Country:** Pakistan

I was responsible for collecting cell phones and guide the audience right path of the stage.

**EDUCATION AND TRAINING**



**Bachelors in Computer Science**

***Usman Institute of Technology*** [ 15/08/2016 – 15/08/2020 ]

**Address:** ST-13, Block 7, Gulshan-e-Iqbal Abul Hasan Isphahani Road, 75300 Karachi (Pakistan)

**Website:** <http://www.uit.edu/>

**Certified Kubernetes Administrator (CKA)**

***Linux Foundation*** [ 24/07/2022 – 25/07/2025 ]

**Website:** <https://www.credly.com/badges/eac28505-e48e-40c1-9225-8c80420cda25/public_url>

**Certified Chinese language (HSK-I)**

***NED University of Engineering and Technology*** [ 01/09/2018 – 30/01/2019 ]

**Address:** NED University of Engineering & Technology University Road, 75270 Karachi (Pakistan)

**Website:** <https://www.neduet.edu.pk/>

**Be Someone's Lifeline**

***Indus Hospital***

**Address:** Plot C-76, Sector 31/5, Opposite، Crossing، Darussalam Society Sector 39 Korangi, Karachi (Pakistan)

**Website:** <https://indushospital.org.pk/>

**DIGITAL SKILLS**



Linux (RHEL, CentOS, Ubuntu, Debian) / Makefile / Scripting in Python and/or Bash / Container (Docker) / GIT (GitHub) / Linux kernel modules / Nmap / Wireshark / Gobuster / Open vSwitch / Virtual Machines / Virtual Machine Manager (virt-manager) / Metasploit / John The Ripper / Django Web Development / RISC-V

| / Beef XSS / **20** | **20** Networking / Automation Script / CICD tools(Jenkins GitLab CI) / Cloud Computing |
| --- | --- |
| **00** | **00** |



(OpenStack) / OpenStack / I/O virtualization / KGDB / QEMU-KVM / Linux Administration (General) / TC Flower / Linux Networking / Linux Storage / xen / Linux kernel / Linux Kernel Development / Scapy / C / Canonical Kubernetes / Docker & Kubernetes / NGNIX / MicroStack / Ansible - IT Automation Engine / Virtualization (Proxmox VE, KVM) / Apache Tomcat, Apache HTTP server / MongoDB / MySql/MariaDB / Ceph Storage / Django/fastAPI

**LANGUAGE SKILLS**



Mother tongue(s): **Urdu**



3 / 4



**Other language(s):**

**English** **Chinese**

**LISTENING** B2 **READING** B2 **WRITING** B2 **LISTENING** A1 **READING** A1 **WRITING** A1

**SPOKEN PRODUCTION** B2 **SPOKEN INTERACTION** B2 **SPOKEN PRODUCTION** A1 **SPOKEN INTERACTION** A1



4 / 4

