# Shahid Ezaz Khan

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# (848)-(300)-3492

# Visa : H1B

# Summary:

* Having around 12 years of total IT experience in the Software Development, Maintenance and Testing.
* My primary area of work is on C++, Embedded C, Python, Bash Scripting, Linux, RTOS and my Secondary area of work is on Golang, SQL, Hardware infrastructure Management and Testing.
* Domain wise I have worked on Networking, Storage, Point of Sales and In-flight Entertainment domain.
* Others Skills: MySQL, Git, Jira, AWS, Agile Scrum, NoSQL, Docker, REST API, Jenkins, CI/CD, Automated Testing etc.
* Hand-on experience in Microsoft Azure cloud platform and merge with python
* Worked on Linux Internals, System Programming, Multithreading and Synchronization method, IPC (Socket Programming, Message Queue and Shared memory)
* Strong experience in Customizing and Building Linux Images including Linux tool chains, BSPs, libraries, cross compilation libraries into build system and configuring Make/CMake files for Compilation.
* Worked on Linux boot loader(GRUB and LILO) and Board Support Packages.
* Knowledge of Virtual File system, NFS, EXT3 etc.
* Worked on Sockets, TCP, Unix, IPv4/IPv6, HTTP, SNMP, and Routing protocol like ICMP, DHCP, DNS, ARP, NAT, Wi-Fi  802.11, Switching, Routing, Firewall Security and Network Security Management.
* Worked on Supporting both Physical servers and VMs for different platform.
* Planning and Implementing Test Plans, Test Cases and Jama requirements.
* Ensure Complete functional path coverage, software test implementation, Black box and White box testing.
* Experience with testing methodologies for Server class services, including latency and load testing as well as designing and implementing test cases, running test cases on distributed systems, and reporting on quality.
* Experience providing leadership and mentoring other Developer and Intern to use best code review and test practices.
* Experience with Testing methodologies e.g. Unit Testing, Integration Testing, Load and Performance Testing.
* Running Manual tests for scenarios that cannot be automated. Monitoring tools, Analyzing results, resolving performance related issues to include optimization and tuning recommendations.
* Good experience on Jenkins, Build Forge for Continuous Integration and Continuous Delivery (CI/CD) and for End-to-End automation for all build process and deployments.
* Experience on used Source Control applications like Git or Code management. Experience with JIRA, SDLC, Agile Methodology, Jenkins, Docker and Kubernetes.
* Experienced with JSON based RESTful Web services and XML/QML based SOAP Web services and worked on various applications using Python integrated IDEs like Sublime Text, Jupyter.
* Use AWS Resources like EC2, S3, VPC, IAM, SNS, RDS, IAM, Route 53 and experience with data testing required.
* Putty Tool, Mobxterm, Monitoring BIOS load messages, Call Processing and Log Collection/Analysis

**Education**

* Master of Science in Computer Science University of Colorado USA-2018
* Bachelor of Technology in Electronics & Communications Jamia Millia Islamia University New Delhi India-2009

# Professional experience:

# CAT Technology San Jose USA

# Client: Panasonic Avionics System Dec 2022 to Till Date

# Role: Software Engineer

# Technologies: C++, Scripting, Python, Networking, Ubuntu

This Project is to read and scrap customized logs from different LRUs like Seat Box, Bluetooth, USB, ABD devices. The technologies used for this development work are C++, Python, SQL, Linux, RTOS, Eclipse, VScode, Jenkins, Docker and Kubernetes, CI/CD. Having working experience on Yocto. This Project reads System and Customized logs files and bundles it into tar files to offload to Ground Side from Air Side via Satellite Communications. This Logging Services application code perform logs capturing and log rotation into different OTEL formats and transform/Send it to different apps.

# Responsibilities:

* Implemented different features(C++ and Python) for different IFE LRUs.
* Create SDK of logging Services to use by different apps for different Platform.
* Tested Vector and capturing logs of different Hardware LRUs and verified it over the collector side.
* Tested different phrases of Hardware testing like Seat Box, ADB, Battery, Sensor, Bluetooth, USB logs and read those logs and verifying it.
* Experience in configuring auto-scalable and highly available Microservices set with monitoring and logging using Azure, Docker.
* Expertise in Object-Oriented design and coding. Good knowledge of various Design Patterns and UML and Wrote Python OO Design code for manufacturing quality, monitoring, logging, and debugging code optimization

# CAT Technology San Jose USA

# Client: Thales Jan 2022 to Nov 2022

# Role: Developer

# Technologies: C++, Bash, Golang, Networking, Linux

# This Project is for creating a feature for In-Flight entertainment solution that is based on Linux operating system and Infotainment architecture. This product implement 6 inch touch display apps code for display and capturing logs and have the functionality like Connectivity A2DP, HFP, MEDIA [USB, IPOD, MTP], Tuner [FM, AM] and Navigation system. This product was implemented for its unique features of live streaming IPTV and online shopping. Technologies used on this project was Python, C++, Golang, Linux, CI/CD, Jenkins and Dockers

# Responsibilities:

* Played as a key member for writing application software for different languages C++, Golang that would run and interact with different third party software.
* Developed Migration Strategy from ACI Network Centric to ACI App Centric Operational Model
* Leveraging Application Dependency Mapping Platform Architecture (Tetration)
* Involved in various Firmware Testing, Integration Testing, and User Acceptance Test(UAT). The device involved for testing are Smart devices.
* Fix the third party apps related bugs and integrated it with own software components.
* Maintaining Lab servers and LRUs devices and upgrading it for latest software releases and used them for our software testing purposes.
* Developed REST Microservices which are like API’s used for Home Automation. They also keep the data in synchronization between two database services.
* Generate Entity Framework context models utilizing database first approach and build library of data access methods
* Used Azure Storage Emulator to test the application against the Microsoft Azure Storage Services like Tables, blobs, queues. Built web journal with framework and Jinja templates

**Cognizant Technology Solutions Cleveland USA July 2019 – December 2021**

**Client: Macys**

**Role: Senior Developer**

# Technologies: C++, Unix, SQL, Python, Bash Scripting

This project is for card Authorization involving refactoring of the legacy Pro C/C++ Code to Python Code based for AWS infrastructure. The work involve in this project was to develop Encryption methods like RSA from a Standard AES. This project is a stand-alone POS application software running for Macys and its business partners. The Technologies involved on this project was Python, C++, Ubuntu, Multithreading and AWS Resources like EC2, S3, SNS, RDS, IAM, Route 53.

# Responsibilities:

# Rewriting the Code from C++ to Python based logic.

* To create a Tech Story based on the refracting of the Code requirements.
* Doing the Unit testing and using the AWS resources for testing and building.
* Defining the comprehensive scenarios and variations to adequately performing the test.
* Updating the Low level design documents.
* Integrated Azure Event Hubs with various Azure services for event routing and processing, enhancing system automation.
* Implemented error handling and logging mechanisms for Azure Functions, improving system reliability and debugging efficiency.

# Mphasis Corp Colorado USA Mar 2015 – July2016

**Client: Hewlett Packard Enterprises**

# Role: System Analyst

# Technologies: Embedded C, Python, HPUX and SQL

This project is for Secure Path Server-based Software product that enhances the HP Storage Systems by providing automatic Path recovery solutions from server-to-storage systems. This solutions in case of any connection failures along with the Secure Path will supports multiple input/output paths between host and storage. This overall path solutions between host and Server redirects the I/O requests to an alternate path.

The technologies used for this solutions was HP-UX, C++, Embedded C, Kernel 4.6, Python 2.7 for Data Analytics with packages Pandas, NumPy, SciPy, Scikit-learn

# Responsibilities:

* Develop Code for enhance features for Secure Path solutions for different customers
* Design in Feature Qualification Plan
* Code Modification, Unit testing and helping in system Integration testing.
* Fix Defects and handling interim release for the escalated bugs.
* Coordinates the team across different Offshore Development Centers.

# Mphasis Bangalore India Mar 2010 – Feb 2015

**Client: Hewlett Packard Enterprises**

**Role: Senior Software Engineer**

# Technologies: Embedded C, Python, HPUX and SQL

This project is for Secure Path Server-based Software product that enhances the HP Storage Systems by providing automatic Path recovery solutions from server-to-storage systems. This solutions in case of any connection failures along with the Secure Path will supports multiple input/output paths between host and storage. This overall path solutions between host and Server redirects the I/O requests to an alternate path.

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# Responsibilities:

* Develop Code for enhance features for Secure Path solutions for different customers
* Design in Feature Qualification Plan
* Code Modification, Unit testing and helping in system Integration testing.
* Fix Defects and handling interim release for the escalated bugs.
* Co-ordinate between HP Fort Collins and local team