

Muhammad Saqib

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EDUCATION

- **National University of Computer and Emerging Sciences** 2012 – 2016
BS Computer Science, CGPA: 3.03/4.0
- **Ayesha Bawany Govt. College** 2010 – 2012
Inter Pre-Engineering, 76% marks

EXPERIENCE

- **Cloud9 Networks FZE** Karachi
Sr. Software Engineer July 2016 - Present
 - **Cloud Monitoring Software:**
 - * Research and solution design for Openstack private cloud infrastructure and services monitoring.
 - * Development of the proposed design that included sandboxed Lua plugins for Heka(github.com/mozilla/heka) and python plugins for collectd for data collection and processing . Elasticsearch , Logstash and Influxdb for data storage and retrieval and Kibana for visualization.
 - * Building grok and LPeg patterns for various services of Openstack cloud: for parsing of machine data into fields for fast retrieval and visualization.
 - * Security testing and best practices.
 - * Built puppet modules and manifests for 1-click deployment.
 - **Network Monitoring System:**
 - * Competitor research and analysis of trends in the domain.
 - * Implementing POC solutions with OSS tools and demonstrate them to decision makers.
 - * Design,development and intergration of opensource tools and in house built addons for network monitoring: including time series data storage , visualization and reporting.
 - * Elasticsearch , Logstash and Kibana for storage/retrieval,parsing, and visualization of syslog data from devices ranging from PDUs to core switches.
 - * Supporting deployment engineer and troubleshooting problems in production.
 - **PNDA Project:**
 - * Deployed PNDA Big data network analytics toolchain with Openstack cloud.
 - * Troubleshooting of various SaltStack scripts and declarative states in the deployment process.
 - * Providing support to various users of the opensource tool with problems in Openstack platform.
 - **Big Data Analytics Engine:**
 - * GUI development with Angularjs framework 1.0.
 - * Writing REST API methods in Java Spring.
 - * Design and deployment of hadoop cluster,and data streaming from JDBC to HIVE.
 - * Deduplication of records in HDFS by scheduling Apache Oozie cron job.
 - **KPK Colleges centralized wifi access system:**
 - * Analysis,design and implementation of the solution with MERN stack.
 - * Lead the development team.
 - * Using Git for version control and CICD with git hooks.

SKILLS

- Engineer robust systems with minimalist design and clean code.
- Hands-on expertise with Docker and Kubernetes for deployment of containerized apps on cloud : AWS,Azure,GCP and Heroku.
- Developed Hadoop programs in Java and worked with Kafka, Zookeeper , Hive, Impala for reporting in HDFS.

- Experience with React and Angularjs.
- Lead a team of trainee engineers.
- Experience with Python and ML toolchain: Pandas, Numpy and Keras.
- Distributed system design and programming in **MPI,Nvidia CUDA and OpenMP**.
- Practical knowledge of load balancers and HA.
- Knowledge of **Hypervisors** and SDN with **Openvswitch**.
- Experience with relational,NoSql and Time-series databases.
- Hands on with Java, Python, JavaScript and C++.

OTHER PROJECTS

- **Sokoban Solver:** Solving sokoban puzzle(NP-Complete problem) with machine learning. Designed a recurrent neural network and generated data using SAT solver. <http://thesai.org>
- **Grpc API:** Grpc API with Nodejs and MongoDB.
- **System programming:** Built virtual machine cluster for MPI and bare metal distributed Hadoop cluster at HPC lab, FAST-NU.