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** UAE
  Sr. Software Engineer *July 2016 - Present*
  - **Cloud Monitoring Software**:
    * Research and solution design for Openstack private cloud infrastucture 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 and Elasticsearch , Logstash and Influxdb for 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 deployment puppet modules and manifests for 1-click deployment.
  - **Network Monitoring System**:
    * Competetor research and analysis of trends in the domain.
    * Implementing POC solutions with openssource tools and demonstrate them to decision makers.
    * Design ,development and intergration of existing opensource tools and in house built addons for network monitoing: incluuding querying of timeseries data from network devices and the storage , visualizatioona and reporting.
    * Elasticsearch , Logstash and Kibana for parsing, storage and retreival of syslog from devices ranging from PDUs to core switches.
    * Supporting deployment engineer and troubleshooting problems in deployment.
  - **PNDA Project**:
    * Deployed PNDA Big data network analytics toolchain with Openstack cloud.
    * Troubleshootiing of various SaltStack scripts and declarative states in the deployment process.
    * Providing support to various users of the opensource tool with problems specific to deployment on Openstack.
  - **Big Data Analytics Engine**:
    * Developing front-end forms and tables using server-side pagination with Angularjs framework 1.0.
    * Writing REST api methods in Java Spring.
    * Design and deployment of distributed hadoop backend- along with tools of the big-data ecosystem.
    * Creating UI forms for establishing jdcp kafka connector for streaming data from Mysql and MsSQL databases;
    * Aggregation and storage of data in HDFS.
    * Created a solution for deduplication of records in HDFS byh scheduling Apache Oozie jobs.
  - **KPK Colleges centralized wifi Access system**:
    * Analysis Design and implementation of the solution.
    * Lead the development team.
    * UI/UX process improvement and testing.
    * Tracking code versions , branches and commits with git.

Skills

- Engineer robust systems with minimalist design and clean code.
- Hands-on expertise with cloud native technologies like **Docker** and **Kubernetes** and deployment of containerized apps and experience with Cloud IaaS namely **AWS** , **Azure** and **GCP**.
- Experience with Big data and its tools like developing MapReduce in Java and working with Kafka, Zookeeper , Hive, Impala for reporting in HDFS.
- Expreience with Frontrend technologies : **React 16 and Angular 1.0.**
- **Leading a team** of trainee engineers.
- Extensive experience with Python Django,Flask,OOP and Data science tools namely Pandas, Numpy, Keras and Tensorflow.
- HPC distributed cluster system design and programming in **MPI,Nvidia Cuda and OpenMP.**
- Practical knowledge of HA and load balancers.
- Practical knowledge of **hypervisors** and SDN with **Openvswitch**.
- Experience with **Relational,NoSql** and **Time-series databases** such as MySql, MongoDB, Firebase , Influxdb, Graphite, Hive.
- Proficient with **Java, Python, JavaScript and C++.**

Other Projects

- **Sokoban Solver**: Solving sokoban puzzle(an NP-Complete problem) with machine learning. Designed a recurrent neural network and generated data by SAT solver. White Paper
- **Grpc api**: Grpc Nodejs api with Mongodb that out-performs the json couterpart by ~10x speed.
- **Big data clusters**: Built virtual machine cluster for MPI and bare metal cluster system for Hadoop mapreduce in HPC lab,FAST-NU.