

MOHAMAD S KHAN

SOFTWARE DEVELOPER | mohamadskhan93@gmail.com | **GIT**HUB: <https://github.com/mohamadkhan19>

LINKEDIN: <https://www.linkedin.com/in/mohamadskhan/>

(510) 364 9877 | **VISA STATUS: GREEN CARD / PERMANENT RESIDENT** | **ADDRESS: FREMONT, CA**

SUMMARY

- A detail-oriented professional having about 3 years of IT experience.
- Experienced in Full stack development, Cloud technologies, Android Development, Internet of Things, Log Analysis and Data warehouse/Business Intelligence.
- Strong knowledge of Software Development Lifecycle (SDLC), DevOps, Agile and Scrum methodologies.
- Strong written and oral communication. Strong analytical skills and ability to resolve problems.

EDUCATION

- MS in Software Engineering, San Jose State University, CA. (Expected) May 2018
- BE in Computer Science Engineering, Osmania University, India. May 2015

TECHNICAL SKILLS

- **Languages:** Java, JavaScript
- **Cloud Technologies:** AWS, Google cloud, Microsoft Azure, Heroku
- **Databases:** MySQL, Oracle, SQL Server, NoSQL, MongoDB, AWS Redshift
- **Rest API:** cURL, Postman, Chrome Advance Rest Client
- **Cloud Computing operating system:** Openstack
- **Scrum Management tools:** Rally, Jira
- **BI Reporting tools:** Tableau
- **Log Analysis: Elasticsearch, Logstash, Kibana (ELK Stack)**
- **Web Development:** Anjular.js, Angular2.js, Node.js, Express.js, React.js
- **DevOps, Continuous Integration Continuous Development (CI/CD):** Jenkins, GitHub
- **ETL tools:** Talend Open Studios
- **Operating system virtualization tools:** Virtual box, VMware
- **Containerization tools:** Dockers
- **IDE:** Eclipse, Android Studios

PROFESSIONAL EXPERIENCE

VCE, Richardson, TX

May 2016 - Jan 2017

ELK stack Developer / Software Developer

Description: Developed a system to monitor Agile teams and performed log analysis on ELK stack.

- Handled installation, administration and configuration of ELK stack on AWS and performed Log Analysis.
- Integrated data from multiple sources like Rally, Sonar, Git, SVN, Jenkins, Testrail using logstash.
- Developed logstash scripts to pull data from various inputs.
- Filtered and transformed data per the business logic in logstash configuration files.
- Ingested the data from multiple sources into Elasticsearch database using logstash conf files.
- Created template files for logstash in Elasticsearch to handle not analyzed string inputs.
- Created indices, document types, document id's in elasticsearch.
- Edited elasticsearch conf files and yaml files to meet the needs of the company environments.
- Performed inner join and outer join from data present in elasticsearch.
- Written logstash plugin files in ruby to meet the complex business requirements.
- Served the ELK stack community with use cases and logstash plugin and actively participated in blogs and Q and A's.
- Written query dsl to query the database and perform aggregations operations like min max, addition, subtraction, count etc., on data fields.
- Created visualization on kibana based on the requirements.
- Created scrum team monitoring charts on kibana.
- Created multiple dashboards to meet the needs of various scrum master throughout the company.
- Created visualization using, line charts, data table, area chart, pie diagrams, timelion app and bar charts.

- Performed Log analysis using ELK stack and created monitoring charts.
- Performed containerization of the software and deployed using dockers.

Environment: V-blocks, CentOS, Dockers, VMware, Elasticsearch, Logstash, Kibana, ELK stack, Rally, Sonar, Git, Svn, Jenkins, Testrail

NPV Staffing, Austin TX
Software Developer

Jan 2016 - May 2016

Description: Developed a system to ingest data from multiple sources and centralized it in a DB and create visualization upon the DB using ETL tools and BI Tools,

- Used Erwin, Creating Conceptual, Logical and Physical data models.
- Data Analysis Primarily Identifying Data Sets, Source Data, Source Meta Data, Data Definitions and Data Formats.
- Development of standardized business names and definitions, construction of a non-relational data model using Erwin modeling tool, publishing of a data dictionary, review of the model and dictionary with subject matter experts and generation of data definition language.
- Managed full SDLC processes involving requirements management, workflow analysis, source data analysis, data mapping, metadata management, data quality, testing strategy and maintenance of the model.
- Designed Star and Snow Flake Data Models for Enterprise Data Warehouse using ERWIN.
- Created ETL architecture, and provided strategy for data cleansing, data quality and data consolidation.
- Designed various ETL load patterns which include SCD Type I, Type II, full load, etc.
- Used different databases in combinations for Data extraction and loading, joining data extracted from different databases and loading to a specific database.
- Worked on Naming standards for Table/Column/Index/Constraints names through Erwin Macros and Master Abbreviations file.
- Extensively used Agile methodology as the Organization Standard to implement the data Models.
- Gathered business requirements through interviews, surveys with users and Business analysts.
- Involved in preparing Logical Data Models and conducted controlled brain-storming sessions with project focus groups.
- Worked on Conceptual, Logical Modeling and Physical Database design for OLTP and OLAP systems.
- Involved in designing Context Flow Diagrams, Structure Chart and ER- diagrams.
- Involved in logical and physical designs and transforming logical models into physical implementations.

Environment: Oracle, Erwin, Windows 7, Teradata, Talend Open Studios, Tableau, GitHub, Jira

Big Data Indus, India
Software Developer

May 2015 - Dec 2015

Description: Developed a system to process huge amount of data using Big Data and Hadoop frameworks.

- Load and transform data into HDFS from large set of structured data/Oracle/Sql server using Talend Big data studio.
- Provisioning, installing, configuring, monitoring, and maintaining HDFS, Yarn, HBase, Flume, Sqoop, Oozie, Pig, Hive, and spark
- Used input components like tFileInputDelimited, tMySQLInput, tFileInputXML etc to extract data from various data sources.
- Used tMap, tIterateToFlow, tXMLMap etc components to transform the data according to the business logic.
- Used tPrejob and tPostJob components load the context or the parameters of the job.
- Captured log files.
- Used tJava and tJavaFlex components to insert java code in the transformation.
- Did performance tuning using tparallelize and tsynchronize and by using the cache memory.
- Used tHDFS components to connect to the Hadoop cluster and Load the data into HDFS
- Used tHIVE components to write Hive queries in the talend jobs.
- Support ETL operations between traditional RDBMS and HDFS using sqoop.

- Troubleshoot performance issues for slow Talend jobs and tune the jobs for better performance.
- Assist in designing and development of ETL procedures as per business requirements.
- Importing data from MySQL database to HiveQL using Sqoop.

Environment: Talend Big Data Studios, Hadoop, HDFS, Hive, Hue, Linux, MySQL, GitHub

Brodlite Solutions, India
Intern Developer

Jan 2015 - May 2015

Description: Developed a system for automatic notification and real time monitoring of Vehicular accidents.

- Designed and developed the schema of the project.
- Responsible for maintaining, backup, replicating and security of the database.
- Developed java interface using Jframes which acted as a car for simulation.
- UML diagrams: Activity Diagram, Class Diagram, Communication Diagram, Component Diagram, Deployment Diagram, Sequence Diagram, Use case Diagram.
- Constantly interacted with emulation group to meet the end product.
- Documentation on every milestone.

Environment: Windows 7, MySQL, Java MS Office 2007, GitHub

PROJECTS IN MASTER'S EDUCATION

A System for Automated Notification for Switched-on lights in an Empty Room:

Spring 2017

Description: Developed a system: to detect an empty room with switched on lights via an IoT, to notify the user about it via Android notifications, and real time monitoring system via android app. This system was developed using technologies: IoT, Mobile App Development, Cloud Technologies and Big Data.

- Developed an IoT sensors using Arduino.
- Developing an Android App to notify user about the switched-on light in an Empty room.
- Designed an architecture by integrating technologies: IoT, Mobile App Development, Cloud Technologies and Big Data.
- Integrated PIR Motion sensor, Temperature sensor, Light sensor and LED with Arduino Uno.
- Written a Backend REST Api in node.js and express.js as a medium for communication of android app and IoT Arduino board.
- Ingested sensor data from sensors into MongoDB in cloud.
- Retrieved sensor data from database and showed real time values on android app.
- Created an Android app using intents, background services, Async task, retrofit library and MP chart library.
- Successfully deployed the Android app on Play store.
- **Google Play Store:** <https://play.google.com/store/apps/details?id=com.purvapatel.lightsoffapp>
- **Environment:** AWS EC2 instance, Node.js, Express, Mongo DB, Java, C Language, Android Studios, GitHub
- **GitHub:** https://github.com/mohamadkhan19/CMPE_277_SmartPhoneAppDev.git
- **YouTube:** <https://youtu.be/byLJB4Zkcq>

A Dashboard for Business Intelligence:

Spring 2017

Description: Developed a system: to perform SSO using Azure AD, to perform visualization of data on Web application build using Angular.js, Node.js and Express.js, to centralize data coming from multiple sources like MySQL, csv files and flat files in a data lake build on AWS Redshift.

- Classic Web development application using Full Stack Development, integrating with Data warehousing and Business Intelligence, Cloud computing with DevOps and CICD.
- Created a centralized data warehouse in AWS Redshift.

- Created a job in Talend to generate data in MySQL present on multiple EC2 instances and then extracting data from MySQL databases and transforming them according to business logic and Centralizing them into AWS Redshift data warehouse.
- Developed a Backend REST Api responsible to connect the angular.js front end and AWS Redshift data warehouse.
- Developed a front end on Angular.js consist of on Azure Active Directory SSO login page and a dashboard consisting visualization of sales data coming from the data warehouse.
- Performed build and deployment of front end using Jenkins.
- Successfully deployed front end on AWS EC2 and backend on Heroku.
- **Environment:** AWS EC2 instance, Angular.js, Node.js, Express, AWS Redshift, MySQL, AWS AD, Jenkins, Heroku, GitHub, Talend Open Studios.
- **GitHub:** https://github.com/mohamadkhan19/CMPE_282_CloudServices.git

IAAS for Vehicles and City Transportation:

Fall 2016

Description: Developed a IAAS system: to provide multiple dashboards based on roles, resource provisioning, resource allocation, multi-tenancy and load balancing.

- Developed an IAAS for sensors on a transportation vehicle.
- Designed the architect of the IAAS, developed database component and virtual sensor cluster component.
- **Environment:** AWS EC2 instance, MySQL Workbench, Angular.js, Node.js, Express
- **GitHub:** https://github.com/mohamadkhan19/CMPE_281_CloudTechnologies.git
- **YouTube:** <https://youtu.be/9mgMhlu86yq>

Openstack Web Application:

Fall 2016

Description: Developed a system: to add more feature to OpenStack like social login integration, on demand software installation, log analysis visualization and email notification.

- Designed and developed a web application dashboard to add extra features to Openstack.
- Administered compute node, controller node, glance images flavors and keystone identity token authorization, Network administration of control node to various compute nodes.
- Performed log analysis for the instance created and the application running on the instances.
- Created a front end web application for great user experience on Angular.js
- **Environment:** Openstack Rest client, Openstack Command line client, Angular.js, Java
- **GitHub:** https://github.com/mohamadkhan19/CMPE_283_VirtualizationTech.git
- **YouTube:** <https://youtu.be/1hzipdrkJDs>

RESEARCH PAPERS

1. A System for Automated Notification and Monitoring for an Empty Room with Lights On May 2017
Link: https://www.researchgate.net/publication/316996029_A_System_for_Automated_Notification_and_Monitoring_for_an_Empty_Room_with_Lights_On
2. A Comprehensive Study of Mobile Sensing and Cloud Services Dec 2016
Link: https://www.researchgate.net/publication/316995947_A_Comprehensive_Study_of_Mobile_Sensing_and_Cloud_Services

LEADERSHIP EXPERIENCE

- ELK stack lead developer at VCE. 2016
- Webmaster IEEE student branch Hyderabad. 2015
- Tech and design head Entrepreneurship cell Hyderabad. <http://ecellmjcet.com/> 2014