

## MOHAMAD S KHAN

SOFTWARE DEVELOPER | [mohamadskhan93@gmail.com](mailto:mohamadskhan93@gmail.com) | GITHUB: <https://github.com/mohamadx19>

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 1 year 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:** Angular.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:** CentOS, Dockers, VMware, Elasticsearch, Logstash, Kibana, ELK stack, Rally, Sonar, Git, Svn, Jenkins, Testrail

## 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](https://github.com/mohamadkhan19/CMPE_277_SmartPhoneAppDev.git)
- **YouTube:** <https://youtu.be/byLJB4Zkcg>

### 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](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, Anjular.js, Node.js, Express
- **GitHub:** [https://github.com/mohamadkhan19/CMPE\\_281\\_CloudTechnologies.git](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](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](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](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**