

# UMANG J GALA - SOFTWARE ARCHITECT

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## SKILLS

### Programming

Java • React • Angular •  
Typescript • Python • C/C++  
• Shell / Bash • SQL • JavaScript  
• HTML5 • CSS • PHP

### Framework & APIs

Kafka • Spark - Stream / SQL •  
Zookeeper • Avro • Protobuf •  
Spring • Hadoop • JUnit

### Platform

AWS - EC2, Lambda, S3, DDB,  
SQS, SNS, Cloudwatch, etc •  
Kubernetes • Docker • Cloudera  
• Android

### Software Tools

IntelliJ Idea • VS Code • AWS CLI  
• Gradle • Maven • Jenkins • GIT  
• GitHub • Oracle • Weka • R

### OS

Mac OS • Windows • Linux

### Soft Skills

Software Designing • Project  
Management • Team Manage-  
ment • Problem Solving

## CERTIFICATION

### Cloud

AWS Cloud Practitioner  
Microsoft Azure Fundamentals

## EDUCATION

### Rochester Institute of Technology

M.S. in Computer Science  
CGPA - 3.29  
May 2015 | Rochester, NY

### K J Somaiya College of Engineering

B.E. in Informational  
Technology  
Aggregate - 66%  
May 2013 | Mumbai, India

## EXPERIENCE

### Amazon | Software Architect & Designer

May 2021 - Feb 2023 | Hyderabad, India

- Designed a customer-facing system that supports data labelling for ML scientists to train and develop their AI models, collaborated with 4 different engineering teams to implement. The system supports end-to-end flow from requesting labelling to delivery of quality labelled data. (Java, Python, React, AWS services like EC2 / Lambda / SQS / DDB etc)
- Designed microservice-based backend architecture to enable secure access to Alexa's data from the internal data warehouse tool protecting customer privacy, this architecture was mandated in all the services across org's engineering teams (Java, Javascript, AWS - API Gateway / EC2 / Lambda / SQS / DDB)
- Designed and implemented a common UI framework for integrating custom plugins to the UI platforms, which indeed was used by 3 engineering teams to efficiently manage the ownership of UI components in a single web application (React, HTML, CSS)
- Designed and developed a feature within the data labelling system to support photo/video data labelling for specific ML scientists requiring quality labelled data for customer visual data such as photos and videos. (Java, React)
- Designed and developed a feature within the data labelling system to support photo/video data labelling that helped developed ML models on visual data. (Java, React)
- Collaborated with AWS organisation to evolve the AWS service offerings for ML scientists internally as well as externally by designing a vast range of data labelling features and improving the ML model execution service.
- Mastered software engineer using Agile methodology by participating in product backlog grooming, sprint planning, review and retrospective
- Volunteered as a mentor for new software engineers in their transition to the team/firm & help develop their professional career

### JP Morgan Chase & Co. | Senior Software Engineer

Feb 2019 - May 2021 | Newark, DE

- Designed and developed a distributed data lake application purely driven by metadata for easy usability and scalability (Kubernetes, Spark, Java, Kafka, Avro, Protobuf)
- Designed and developed a Real-Time Model Transformation application that converts any input data model to a specified output model with data lineage (Spark Stream/SQL, Java, Avro)
- Development and test distributed application changes using disciplined software development processes (Java, Kafka, Zookeeper, Avro)
- Adherence to Development Life Cycle, IT controls and change control policies for all developments
- Day-to-day maintenance of the application system in operations, including tasks related to identifying and troubleshooting application issues and issues resolution or escalation
- Application maintenance activities in catering to ad-hoc work requests and implementing change requests

### JP Morgan Chase & Co. | Software Engineer

Feb 2015 - Jan 2019 | Newark, DE

- Developed and tested demo examples for the beta release of a new upcoming System Toolbox.
- Developed metadata-driven web application for data browsing (Angular, Java Rest API)
- Developed application framework for data landing, scalable by configuration
- Developing a new feature to the application using Java Spring framework (Java, Spring, MQ, Pentaho)
- Developed an automated script to scan the application repository for any vulnerabilities (Bash, Unix)
- Responsible to conduct knowledge sharing sessions within/outside the team to increase code reusability
- Developed various reports using the Pentaho ETL tool (Java, Pentaho, Oracle)
- Volunteered as Tech Lead to develop and successfully deliver a web application for a non-profit organization partnered with JP Morgan

## INTEREST

Reading • Travelling • Writing • **JP Morgan Chase & Co. | Software Engineer - Intern**  
Problem Solving • Photography • Jun 2014 - Aug 2014 | Newark, DE  
Volunteering

## COURSEWORK

### Graduate

Parallel Computing  
Data Security & Privacy  
Distributed Systems  
Computer Networks  
Cryptography  
Neural Networks  
Machine Learning  
Big Data  
Algorithms

### Undergraduate

Information & Network Security  
Software Engineering  
Object Oriented Programming  
Data Structures  
Database Technologies  
Micro controllers and processors

## EXPERIENCE

- Developed a module for the Back office application using ExtJs and Java Spring framework
- Developed a program that processes hundreds of thousands of entries in more efficient way to increase the performance (Java, SQL)
- Developed a automated testing infrastructure for the application using Selenium Java API
- Developed a program to generate test reports automatically (Java)
- Responsible for maintaining and upgrading the virtual environment for application testing (Unix)

### **Rochester Institute of Technology | Graduate Assistant - System Admin, CS Department**

Aug 2014 - Apr 2015 | Rochester, NY

- Responsible to setup Hadoop cluster environment in the lab
- Responsible to maintain/upgrade CS department servers, lab machine and user accounts
- Developed a script to automate used disk space calculation for faculty/user accounts (Unix, bash, C shell)
- Responsible for solving/supporting real time technical problems faced by faculties, staffs and students

## PROJECTS

### **Indoor Localization** Aug 2014 – May 2015

A mobile application that locate an object or a people inside a building using Received Signal Strength (RSS) from already deployed WiFi access point, as GPS is not suitable for indoor condition. It also help getting direction in huge indoor environments like schools, malls, airports, etc. Technologies used Android, Java & C++

### **Hybrid Parallel Logistic Regression** Sep 2014 – Nov 2014

Used the Parallel Java 2 library to implement parallel logistic regression for machine learning. Ran experiments on a 10-node cluster parallel computer using very large and very sparse data-sets (3 million records against 2 million features). Technologies used Java, PJ2 Java library

### **Stock Recommendation Model** Feb 2014 – Apr 2014

A system that recommends the stocks to users based on the current stocks in their portfolio. The system uses k means clustering algorithm on historical NASDAQ data to cluster the stocks. Technologies used MySQL database, SQL, Weka & PHP

### **Real-Time Editing System** Sep 2012 – Apr 2013

A groupware system that allows group of users to view and edit the one document at real time. A user can create or upload a document and invite other users to contribute to that document. It provides access privileges settings to the owner of the document. Technologies used PHP, HTML, CSS, JavaScript, JQuery, Node.js & SQL

### **Information Sharing** Aug 2014 – May 2015

A web application where users can create groups and share information or documents with individual or groups. It has a real time chat room to conduct online meetings. Technologies used JSP, Servlet, Javascript, HTML, CSS and SQL

### **Trivial File Transfer Protocol** Aug 2014 – Nov 2014

Implemented TFTP used to transfer files that runs on top of UDP. This TFTP protocol is based on RFC-1350. Technology used Java