

# Komal Garg

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## EDUCATION

University of Massachusetts Amherst, MA, United States

Expected Graduation: Summer 2022

Master of Science in Computer Science

College of Engineering, Pune, India

Graduated: May 2017

Bachelor of Technology in Information Technology

## TECHNICAL SKILLS

**Languages & Frameworks:** JAVA, C, Scala, SQL, GO(Beginner), AJAX, Spring Boot, Docker, Jenkins, Apache Camel, Eclipse link JPA, Google Protobuf, Mockito, Flink, Kafka, Kubernetes, JaCoCo, Helm Charts, Maven, JDBC

**Database:** SQL, MySQL, Oracle, PL/SQL, PostgreSQL, H2

**Application Software:** Postman, Gitlab, SonarQube, AWS, Grafana, Tableau, Kibana, Elasticsearch, Android Studio.

**Distributed Systems:** Apache Spark, AKKA Actor System, Elastic Map-Reduce.

**Web Technologies:** HTML, CSS, JavaScript, Knockout JS, TypeScript

## WORK EXPERIENCE

HERE Technologies, Mumbai – Software Engineer 2

June 2019 – Present

- Formulated **streaming pipeline** which builds metrics corresponding to the quality of data coming from various input services to deliver strategic business KPIs and was awarded “STAR Performer” of the project.
- Decreased troubleshooting time by around 60% by generating the visual feedback-loop framework using **Tableau** dashboards which renders map features and corresponding metrics.
- Automated the deployment of **Flink** Pipelines and RESTful services on **Kubernetes** using **Helm charts** and **Gitlab Pipeline** leading to minimal manual intervention during **CI/CD stage**
- Improved the performance of microservices by 30% through tuning **memory** and **CPU** parameters
- Devised the framework to get real-time updates of the streaming pipeline by adding **functional metrics** within Flink operators.
- Secured** services by adding HERE API Gateway as the entry point which restricted direct microservice calls
- Implemented a Snapshot application using **AKKA Actor system** which incrementally captures map data from **MySQL** database to internal datastore which is then used to validate data correctness.

Oracle Financial Services Software Limited, Mumbai – Application Developer

July 2017 – May 2019

- Increased Code coverage of payments module by 68% through writing **JUnit** test cases
- Built REST APIs in **Java** using **Eclipse Link framework** for Limits module including the features which allow users to set custom limits for weekly or monthly transactions
- Integrated Oracle Banking APIs with host services by implementing adapters and clients using **Apache Camel Framework** within two weeks resulted in **quick delivery of MEED** project
- Designed Wireframe and programmed screens and components for Limits module based on **Model-View-ViewModel** framework using **KnockoutJS** and **Typescript**
- Developed **Alert framework** for processing different types of notification post financial and non-financial transactions
- Generated a generic framework for handling variable number of query parameters(q-query) while invoking **RESTful APIs**

HSBC Financial Services Holdings Company, Pune – Software Developer Intern

April 2016 – May 2016

- Constructed a **web application** “Desk Booking System” through which end-users can book desks, meeting rooms, and conference rooms as well as can check the status of their bookings

## PERSONAL PROJECTS

Stock Trading System

Fall 2019

- Engineered web-services which facilitate the user to trade stock online and keep track of their transactions
- Streamlined APIs for Administrator to onboard members and monitor fraudulent transactions

Icicles Game

Spring 2019

- Created a **cross-platform 2D game** where the player must save himself from icicle drops falling from top of the screen and maintained three difficulty levels depending on frequency and speed of falling Icicles
- Tools Used: **JAVA, Android Studio, Application Engine libGDX**

## AWARDS & EXTRACURRICULARS

- Winner** of Carrom Championship, 2018 held in Oracle
- Second Runner up in **HackTron, 2019** - a seven-hour extensive hackathon organized by DBS Bank (Total team – 289)
- Led Infrastructure Team in **Mindspark, 2016** – an annual technical event of COEP
- Marketed the Perfume product as **Exhibitor** in multiple Expos and received an overwhelming response from customers