

# Saurabh Gaggar

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<https://github.com/saurabhg27/>

## Education

### Master of Science, Computer Science

Spring 2021-Present

Arizona State University, Tempe | GPA: 4.0

CSE510 DBMS Implementation, CSE546 Cloud Computing, CSE511 Data Processing at Scale, CSE551 Foundations of Algorithms

### Bachelor of Technology, Electronics and Communication Engineering

2014-2018

National Institute of Technology Karnataka, Surathkal, India

SIG Head of Cipher (Computer Science SIG) at Institution of Engineering and Technology club

## Skills

- 2.5 years' work experience with Java 8 development.
- RHEL Linux, Git, JIRA, Teamcity CI-CD, Agile
- Java 8, Distributed and Multi thread programming, thread pools, Executor interface, synchronization; Functional programming interfaces.
- Python, C++, Web Development, spring boot, jQuery, MongoDB, Oracle, Hazelcast, Gemfire
- AWS EC2, GCP GAE, Digital Ocean development and administration.
- Apache Kafka, Storm, Spark, Zookeeper, integration and development with java.

## Experience

### Citibank | Software Developer | Full Time

Aug 2018-Dec 2020 | Pune, India

- Build security layer on Gemfire cache grid in java, integrate with internal systems like LDAP, Kerberos and OAuth2 for authentication and authorization.
- Build, maintain Gemfire cache grid with multi node physical machines clusters in production in multiple geographical regions. Set up auto backup and failover pipelines. Involve and manage support teams and vendors. Resulted in reducing deployment time by 2x.
- Design, develop a new architecture using distributed processing systems like Apache Storm and Kafka in Java 8 to increase throughput and provide horizontal scalability of QMA mail processing application. Resulting in effectively 3x the old throughput.  
Use MongoDB and Oracle as databases, Hazelcast as in memory cache.
- Develop internal Kafka Java API client, making it fail resilient by enabling multi-datacenter message replication and an intelligent client with auto-switching capabilities between different geographical regions. Resulted in onboarding of ~75 new internal client teams.
- Member of Technical Pillar of Citi Pune Campus, organized hackathon, technical debate.

### Citibank | Software Development | Intern

May-July 2017 | Pune, India

- Develop REST web application with java spring boot to track changes in software development by integrating various sources of information like git, build tools, CI tool and JIRA. Reduced time taken to track issue status in pipeline by 3x.

## Projects

### User preference sensitive database

- Extend Minibase Database engine, implement skyline operator and hash index features to support ranked user preference queries.
- Implement custom indexes, join operators, data file storage mechanism for clustered and un-clustered B+ Tree and Hash indexes

### Autoscaling EC2 on AWS

- Use AWS EC2 java API to develop multi-tiered autoscaling image processing backend on AWS, use SQS for message queue and S3 for storage.

### Storage Optimizer

- Build autoscaling PAAS based Web app using java 8 spring boot on Google App engine to integrate various cloud storage accounts like Google Drive, Dropbox into single space, provide sharded and encrypted storage.