Nitin Paliwal

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Currently, I work as a Software Engineer at WalmartLabs India, building and maintaining real-time streaming Platform on Kafka and kafka streams. Skilled in streaming/batch processing Technologies, Data Structures and Algorithms. Distributed computing enthusiast with hands-on experience in docker.

Education:
- Bachelor of technology in computer science and engineering, IIT Dhanbad (8.2 CGPA)
- 12th, Rajasthan board of secondary education. (90.8%).

Technical skills:
- Languages: C ,C++, Java
- Technology: Kafka, Kafka streams, docker
- Database: Rocksdb
- Scripting: Shell, Bash, python
- Operating systems: Linux, Mac OS

Work experience:
1. **WalmartLabs (position – IN2)**   (August 2018 – present)
   - **Increasing fault tolerance in Kafka Streams through rack awareness -**
     Kafka streams provide replica assignment based on load balancing, in case of a Cloud / Rack going down it may lead to data loss, to handle that Rack awareness feature was developed. So, for replica, assignment will be based on
       1.) Fault domain and Update domain followed by load balancing on azure machine.
       2.) Cloud and load balancing for Internal cloud.

   - **Increasing efficiency and reducing replica bootstrapping time for global topics in Kafka streams-**
     The project is about reducing load on the Kafka brokers and making bootstrapping faster.
       - Implemented this by changing the source of truth from changelog topic of Kafka to dedicated machines.
       - Replica bootstrapping latency decreased to 30sec from 7mins.

   - **Automated integration testing –**
     Automated end to end testing which runs integration tests on making any commit to git and publish the results to the team. Docker environment was used to replicate the system on which the tests should run.

2. **WalmartLabs (position – INTERN)**   (May 2017 - July 2017)
   - **Benchmarking compression and serialization techniques for Kafka (Internship project)-**
     Goal was to reduce the data stored in the Kafka brokers either by compression or serialization
       1.) Benchmarked the compression techniques which are provided by Kafka on the basis of   compression ratio and compression speed.
       2.) Benchmarked the serialization techniques.
     Technologies used - Avro, Protobuf, message pack, Json, Bson.

3. **Academic projects**
   - **Image steganography (College project)** –
     Hiding sensitive information from open internet via 3 levels of security
       1.) Hiding text in image with Method of LSB.
       2.) Text encryption using RCA algorithm.
       3.) Huffman code for third level security and data compression.

Roles and Responsibilities:
- Lead project of migration, for team's internal system on internal clouds to Microsoft azure cloud.
- Member of CODE-ISM competitive coding club of IIT Dhanbad.

Achievements:
- Among top 5 in code marathon (2017 and 2016), Competitive programming hackathon organized by IIT Dhanbad.
- Achieved a rank of rank of 4214 in IIT-JEE advanced 2014.
- Achieved a rank of 4712 in JEE-Mains 2014.
- Among top 0.1% students in senior secondary examination by RBSE.