

**Reliance Jio Infocomm**

Cloud Engineer

Bangalore, India

April 2014 to Present

- Contributed to the design and implementation of an IaaS platform based on OpenStack for Reliance Jio.
- **Upstream contribution**
  - Implemented caching layer in identity, assignment components of Keystone and thus reduced calls to database.
  - Implemented role based access control in MagnetoDB.
  - Integrated Ceilometer with MagnetoDB for metering.
  - Bug fixes in Keystone, MagnetoDB, Tempest, Glance etc.
  - Code reviews in Glance, MagnetoDB, Keystone.
- **Contributions which are not in upstream**
  - A POC which involved replacing MySql with a distributed database (MagnetoDB, Cassandra) as a backend for Keystone. The aim of this project was to eliminate single point of failure and lack of scaling out option with MySql. It also offered cross region replication which is beneficial in running multi-region cloud deployment. There is a spec under review for this.
  - Configuring and managing Keystone service as a part of Identity management team. That involves defining apis, setting RBAC policies and having tenant isolation among different tenants.
  - Wrote functional tests to test Keystone apis to work with customized policy file.

**Morgan Stanely Advantage Services**

Analyst

Mumbai, India

Sep 2013 to March 2014

- Developed a web application to visualize aggregated data from kdb+ database and present it with Ext JS and Highcharts library. It helped in identifying potential high value clients for equity derivative based products.

**Google Summer Of Code**

Student Developer

Remote

May 2013 to Aug 2013

- Improved replication policy in Drizzle database. Implemented a facility to wait for an event on table. That way, slaves subscribe to events on master and get notified of the events happening on the master. Finally changed slave code to use this and do event-based replication instead of polling.

**Microsoft**

Student intern

Hyderabad, India

May 2012 to July 2012

- Developed a tool to generate sql script after grouping and efficient encoding columns of an excel sheet. This tool eliminated the need of managing large excel sheets manually and reduced the number of rows by a factor of ten.

**Other Projects**

- **Page rank algorithm:** Implemented scalable version of page rank algorithm with input as webgraph from Google programming contest.
- **Membership protocol:** Implemented the gossip membership protocol which updates membership list at each node when new nodes join or nodes leave.
- **Mini distributed database:** Built upon the membership protocol project and wrote an in memory database where keys were distributed among nodes using consistent hashing.
- **Mini relational database:** Parsed a small subset of sql language and implemented simple database queries on tables stored in text files.
- **Movie recommender system:** Implemented a movie recommender system using algorithms like k-means, collaborative filtering, k-nearest neighbours on a dataset collected from facebook friends.

**TECHNICAL SKILLS**

Python, C++, Go-lang, MySQL, Cassandra, DynamoDB, Linux, Shell scripting, Puppet, Vagrant, LXC  
Docker, SDN Fundamentals, Rest API, Distributed systems.

**EDUCATION & TRAINING**

**Indian Institute of Technology Hyderabad**

Bachelor in Computer Science and Engineering with cgpa of 8.3

August 2009 to May 2013

Mining Massive Datasets – Coursera – grade : 94.9%

Feb 2015 to March 2015

Cloud Computing Concepts I & II – Coursera – grade : 89%, 99%

Feb 2015 to March 2015

**ACHIEVEMENTS AND MISC**

- Secured a rank of 2035 in IIT- JEE 2009 and 1008 in AIEEE.
- Scholarship by IITH and sponsorship for Industrial visit by JICA for good academic performance.
- Talks in Openstack meetups.
- Ping pong and carrom master.