

EDUCATION

Stony Brook University, Stony Brook *Master of Science in Computer Science* *Aug 2019 – May 2021*
Major Coursework: Distributed systems, Big Data systems, Database systems, Data Science, Artificial Intelligence, Algorithms

Indian Institute of Technology, Varanasi *5 Year Dual Degree in Computer Science* *Jul 2012 – May 2017*

TECHNICAL SKILLS

Languages and Frameworks: Java, C++, Node.js, Go, MySQL, JavaScript, Python, React, HTML/CSS, BASH

Cloud Technologies: Docker, Redis, Apache Kafka, Terraform, Jenkins, Kibana, Logstash, ELK, Hashicorp Packer, OpenStack, Nginx, Proxmox, VMware vSphere, VMware Fusion, AWS (S3 and EC2)

Databases and File systems: SQL, Elastic Search, Hadoop, Spark, Apache Hive, Redis, MongoDB, RDBMS, NoSQL

WORK EXPERIENCE

NortonLifeLock, Resources/Infrastructure *Software Developer Intern* *June 2020 – Aug 2020*
(Infrastructure as Code, Terraform, Jenkins, Docker, CI/CD pipeline, Packer, vSphere, Virtual Machine, Automation, Fusion)

- **Terraform Deployment:** Built from scratch, a scalable Infrastructure as code (IaC) project for deploying Jenkins with 2 MacOS, 1 Windows and 3 Linux agents using Terraform on on-prem AWS EC2 like private cloud and VMware vSphere.
- **Jenkins Master/Slave:** Created 8 minimally customized virtual machine templates to deploy Jenkins with Packer, Fusion and wrote scripts to easily migrate configurations using thick eager zeroed virtual disks and bus-sharing SCSI controllers.

PayPal, Marketplaces Data Products *Software Developer 2, Software Developer 1* *Jul 2017 – May 2019*
(Java, Node.js, MySQL, React, Docker, Elastic Search, Apache Kafka, Kibana, ELK, Python, RESTful APIs, Hadoop, Big Data)

- **Full-Stack Zeus Project:** Designed and Implemented an intelligent alerting system using Node.js, React, Python to provide validation insights into 2 Java components with customizable rules. Also useful in tracking team KPIs.
- **Java Daemon and Batch:** Developed real-time transactional insights REST APIs for key stakeholders by processing data from HDFS to Elastic Search with a team of 3. Improved functional test automation time by 35% by parallel execution.
- **REST and GraphQL API Monitoring:** Increased productivity by 60% by exposing APIs from Zeus to automate timely monitoring of Hadoop data inconsistencies with Python scripts and Cron Jobs to involve respective teams.
- **User Engagement Pattern Tracking:** Collaborated with a team to analyze user actions on merchant's registration web-app flow to improve UI experience and conversion rate using Node.js, MySQL, Python. Mentored 2 interns.

COMPAS Lab, under Prof. Mike Ferdman *Cloud Administrator* *Jan 2020 – Present*
(OpenStack, Proxmox, Linux/Unix Networking, Cloud Networking, Virtualization, Distributed Infrastructure)

- **OpenStack Servers:** Administering the private cloud system (similar to AWS EC2) operated using OpenStack by resolving virtual machine issues and added 4 bare metal provisioning machines to the cluster.
- **Proxmox Cluster Setup:** Built a Ceph distributed cluster of 3 Proxmox machines mounted to a Network File System ISO server with a team of 2, and currently configuring MAAS (Metal as a service) to manage provisioning.

PERSONAL AND ACADEMIC PROJECTS (More on [GitHub](#))

- **COVID-19 Analysis on Psuedo-Distributed Hadoop and Spark (Database systems):** Analyzed the infection rates across 110 countries with MapReduce jobs utilizing distributed cache and broadcast variables. [Java, Hadoop, Spark, Big Data]
- **Distributed Log Replication Key/Value Service (Distributed systems):** Implemented MapReduce library and a raft system for reliable state persistence to tolerate upto 50% of workers failure. [Go, Fault tolerant, Multi-Threading, gRPC]
- **Movie Rating Prediction using Sentiment Analysis on Twitter:** Analyzed 19K tweets by 3 class labels with Naive Bayesian and SVM with an accuracy of 63% and 71.3% with IMDB dataset. [Python, NLTK, Hadoop, Apache Hive, Flume]
- **Multithreaded Sort Service:** Normalized sleep sort container implementation [Go, Docker, REST API, Beego, HTML/CSS]
- **Books Publishing Service:** Backend REST APIs to manage bookstore with [Node.js, Docker, Redis, MongoDB, Mongoose]

ACHIEVEMENTS

- **Research Publication:** Co-authored Recommender Systems Parallel Matrix Factorization using Genetic Algorithm in 15th International Conference on Information Technology (ICIT) IEEE 2016. [[paper](#)]
- **Nutanix Cloud Scholarship:** Received in June 2020 to Nutanix's Hybrid Cloud Udacity Nanodegree program.
- **Competitive Coding:** Ranked top 2% on [[HackerRank](#)][[BinarySearch](#)], 3rd in IIT Hackathon 2016 with a team of 2 for building a news aggregator Android Application.
- **TA Experience:** Taught IT Workshop (Data Structures and Algorithms), Real Time Systems (4 networking lab sessions).