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SAURABH DEOCHAKE

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EMPLOYMENT

Site Reliability Engineer — **Societe Generale** — **Feb 2018-Current**

- Developed low-latency monitoring solutions to monitor a widely-distributed high frequency trading infrastructure using Python, Bash, and Elasticsearch, Logstash and Kibana; Achieved three to four times faster performance compared to legacy monitoring solutions
- Researched and implemented ways to maintain a complete Continuous Integration-Continuous Deployment chain by providing uniform configuration across infrastructure using Ansible and provisioning of automated builds using Jenkins
- Provided active production support by resolving the issues that may arise at the application level, UNIX-level or network-level to ensure high availability and low-latency for users across the world

Cloud Software Engineer Intern — **Intel Corporation** — **June 2017-Aug 2017**

- Researched on NVMe over Fabrics (NVMe-oF) with solid state drive to derive a scalable, low latency and high performing cloud storage solution in Intel Rack Scale Design™ data centers
- Implemented 'conio'-a command-line tool for automated I/O benchmarking of Docker containers on NVMe volumes using Python. This tool is used by several teams for quick I/O benchmarking of containers
- Developed and contributed to Intel Snap plugin using Go to extract NVMe-based cloud storage telemetry and monitor NVMe over Fabrics using Docker containers orchestrated by Kubernetes

Software Engineer (R&D) — **NTT Data Americas** — **July 2012-Mar 2014**

- Implemented Central Logging System and 'Backup and Restore' System of GresCube™: a commercial distributed database service which guarantees minimal downtime and enhanced business continuity by testing network package flow in Python
- Architectured six times faster disaster recovery operations module using various file synchronization, archive and transfer utilities upon customer's demand after the Megaquake of Japan by designing high availability services inside containers on RHEL Linux
- Analyzed and performed an extensive research on issues with virtualization overhead caused by LXC Containers, KVM and OpenVZ, for distributed databases whose outcome became the foundation of GresCube™
- Developed Puppet and Kickstart scripts to automate creation of web server components called PROSSIONE™

Part Time Lecturer — **Rutgers University** — **Aug 2016-Dec 2017**

- Constructed, implemented and executed an effective lesson plan for a diverse group of college students
- Taught logic and thought building techniques for programming using Scratch and Python

EDUCATION

New Brunswick, NJ — **Rutgers University** — **Jan 2016-Dec 2017**

- M.S. in Computer Science, Research Area: Distributed Systems and Cloud Computing. GPA: 3.4

Pune, India — **University of Pune** — **Aug 2008-June 2012**

- B.E. in Information Technology, Research Area: Distributed Systems. First Class with Distinction

LANGUAGES AND TECHNOLOGIES (YEARS)

- Python(4+), C(3+), Java(2+), Go(1); Virtualization- Libvirt(2+), LXC(2+), KVM(2+); Cloud- Kubernetes(1+), Docker(2+), Bluemix(1), Puppet(1+), Ansible (1), Jenkins(1), ElasticSearch(1), Logstash(1), Kibana(1), Grafana(1), Spark(1), AWS(1+), Google Cloud(1); Database-PostgreSQL(2+); Web-HTML5(1+), CSS(1+), JavaScript(1+), Bootstrap(1+); Linux(8+); GitHub(4+); Agile(2+), DevOps(2+)

TECHNICAL PROJECTS

- **Deep Learning using Tensorflow and Apache Spark** (2017)- Implemented a Python tool that recognizes the objects held in front of web cam of a computer and classifies them using deep learning neural networks with Tensorflow, OpenCV and Apache Spark
- **POSIX Pthread Library** (2016)- Designed and developed an UNIX-style multi-level feedback queue scheduler scheduler that contains implementations of primitive functions of original Pthread library using C.
- **Topik: Top-k Data Search in Geo-Tagged Social Media** (2016)- Fetched k most popular users in a location from a vast data pool of all possible Twitter users. Achieved performance improvement from $O(n^2)$ to O(nlogn) using No-Random Access (NRA) indexing for big data using Python, Flask, MariaDB and Bootstrap
- **Multi-Party Multi-Issue Negotiation Model (R&D)** (2011-2012)- Innovated a module using principles of Game Theory to engage software agents in B2B/B2C e-commerce activities to provide an automated auctions feature using Java, JSF, JavaScript and Oracle.

PUBLICATIONS

- **MAINWAVE**: Multi Agents and Issues Negotiation for Web using Alliance Virtual Engine; The Smart Computing Review Journal, Korea; Vol.2, No.5, October, 2012; pp.308-317; ISSN 2234-4624 **(DBLP)**
- **HENRI**: High Efficiency Negotiation-based Robust Interface for Multi-party Multi-issue Negotiation over the Internet; CUBE 2012 International IT Conference, Pune, India; ACM Digital Library, USA; pp.647-652 **(DBLP)**

AWARDS AND ACTIVITIES

- **Department of Information Technology (Co-Head)**: Managed and lead a team of 8 students in Accolade, the national technical event of the department of my undergraduate school
- **Gold Medal for the Best Research Project**: Awarded by Tata Consultancy Services for my undergraduate research project, out of all the projects in all 14 departments of my school