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SAURABH DEOCHAKE

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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), DevOps(1+), Puppet(1+), Grafana(1); Database-PostgreSQL(2+); Web-HTML5(1+), CSS(1+), JavaScript(1+), Bootstrap(1+); Linux(7+); Web Services(1+); GitHub(4+); Agile(2+), Continuous Integration(1)

EMPLOYMENT

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

- Performed research on NVMe over Fabrics (NVMe-oF) as a scalable Cloud Storage solution
- Researched on a prototype on 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**

- Designed and 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
- 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
- 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™ and use HA service to test servers
- Developed Puppet 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

TECHNICAL EXPERIENCE

Projects

- **Bluemix Application Using Eclipse** (2017)- Developed a front-end application in Eclipse using different services on IBM Bluemix as well as researched on multiple Watson tools and APIs such as Text to Speech to create an interactive chat box
- **POSIX Pthread Library** (2016)- Designed and developed an UNIX-style scheduler that contains implementations of primitive functions of original pthread library. Custom POSIX functions showcased a multi-level feedback queue scheduler which processed threads by providing them with immunity to Priority Inversion Problem 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 Non Random Access(NRA) indexing for big data using Python, Flask, MariaDB and Bootstrap
- **Parallel Password Cracking using OpenMP** (2016)- Implemented a parallel password cracker using parallel programming tool OpenMP reducing time taken to crack a password from ~80 minutes to 27 sec using C.
- **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. **Gold Medal, Best Student Project Award**

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
- **Multi-party Multi-issue Negotiation Model (Received Gold Medal for Best Student Project)**: Awarded by Tata Consultancy Services for my undergraduate research project, out of all the projects in all 14 departments of my school