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(1+), DevOps(1+), Puppet(1+); Database-PostgreSQL(2+); Web-HTML(1+), Bootstrap(1+); Linux(7+); Web Services(1+); GitHub(4+); Agile(2+)

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
- Developed 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
- Implemented 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
- 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
- Performed an extensive research on issues with virtualization overhead caused by LXC Containers, KVM and OpenVZ, whose
 outcome became the foundation of GresCubeTM
- Analyzed and compared Advance Update feature of distributed databases using LXC Containers and HA services to test servers based on network package flow to allow updates with minimal downtime
- 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

- **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(n²) 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