Shubhro Sinha

linkedin.com/in/shubhrosinha
Bengaluru, Karnataka

Email : shubhro22@gmail.com
Mobile1 : +91-9986619004
Mobile2 : +91-8217460442

SUMMARY

System programmer with 14+ years of experience in Networking, OS, Cloud, File and Distributed systems

TECHNICAL SKILLS

- **Languages**: Go, C, Python   **Technologies**: Linux, TCP/IP, Docker, DPDK, OVS

EXPERIENCE

- **Nuage Networks From Nokia**   Bengaluru, KA
  Senior Technical Specialist   *Jan 2020 - Present*
  - **Nuage VNS**: Nuage Networks Virtualized Network Services (VNS) delivers SD-WAN functionality that allows seamless connection across branch offices and data centers. I am part of the data-plane team and have worked on
    * Forward Error Correction of IPSEC tunnels
    * Cisco SGT packet propagation over overlay/underlay
    * Containerization of OVS-DPDK based Nuage Software to run on public clouds
    * Handling upgrades to latest versions of OVS and DPDK
    * Various bug fixes related to IPSEC, packet forwarding, VXLAN etc.

- **Ionos Networks Inc./IPCore Solutions Pvt. Ltd**   Bengaluru, KA
  Cloud Dataplane Lead   *Nov 2014 - Dec 2019*
  - **Quantum File Transfer(QFX)**: QFX is a file/directory sync solution that can operate at Gigabit speeds over intercontinental distances. The software is built to scale to tens of million files and tens of terabytes of data. I was responsible for architecture of the data-plane and led a small team of engineers to develop software for
    * Multicast secure file/directory sync using high speed data transport over TCP/IP
    * Dynamic path detection, healing and Congestion Control
    * Network resource allocation, management, fault tolerance and resiliency
    * Client apps on MacOS and Linux to replace CPEs
    * Develop up a docker based upgrade mechanism to upgrade CPEs

- **CSR India Pvt. Ltd/Qualcomm India Pvt. Ltd.**   Bengaluru, KA
  Senior Software Engineer   *Jan 2013 - Nov 2014*
  - **Synergy WiFi Stack**: I was responsible for requirements analysis, design and development for mac802.11 based driver for an 802.11AC chip

- **Sandvine India Pvt. Ltd.**   Bengaluru, KA
  Sr. Engineer   *May 2012 - Dec 2012*
  - **Sandvine's Signaling Controller**: Modification and Enhancement of Linux Virtual Server (LVS) module to support SNAT and DNAT traffic.

- **Brocade Communications India Pvt. Ltd.**   Bengaluru, KA
  Software Engineer II   *Apr 2011 - May 2012*
  - **Brocade's Project Mercury**: Developed a dynamic Kernel Module Tracing Infrastructure to profile various kernel calls.

- **Mindtree Ltd.**   Bengaluru, KA
  Module Lead/Sr. Engineer/Engineer   *Jul 2007 - Apr 2011*
  - **Embedded Software Practice**:
    * Design and Development of SIP based 2-way Video Conferencing feature on Android
    * DRTL – Implementation of a deadline aware scheduler, Deadline aware locking, and deadline aware interrupt handling in the Linux kernel
    * Remotification of WiFi driver companion application and driver enhancements for a series of Wi-Fi chipsets
    * Development of Linux device drivers for Touch screen controllers on Atmel AT91SAM9261/AT91RM9200 platform. (I2C, SPI, GPIO)

Independent Project

Developed a prototype of a policy based distributed file system using FUSE. Worked with a team of 2 developers to develop the prototype and pitch to various investors. The source code is open sourced under GPLv2 and can be found here - https://github.com/seamlessstack/SeamlessStack

Education

- **Birla Institute of Technology and Science** — Bengaluru, KA
  Master of Technology in Software Systems(Work Integrated Learning Program); CGPA: 8.10 — *Jul. 2017 – Jul. 2019*

- **Bengal Engineering and Science University, Shipbur (now IIEST, Shibpur)** — Howrah, West Bengal
  Bachelor of Engineering in Information Technology; 81.2% — *Aug. 2003 – July. 2007*

- **Holy Mission High School** — Samastipur, Bihar
  CBSE - AISSCE(XII); 84% — *2001*

- **Central Public School** — Samastipur, Bihar
  CBSE - AISSE(X); 85% — *1999*

Publications and Presentations

- "**Deployment Specific Real Time Linux**" on 23rd Sep, 2009 at the 1st LinuxCon in Portland, OR, USA

- "**An Efficient Technique for Enhancing Forensic Capabilities of Ext2 file system**" at the 7th Annual Digital Forensic Research Workshop in Pittsburgh, PA, USA.

Achievements/Rewards

1. Special Achievement award for performance during 2021-20222(Nuage Networks.)

2. Outstanding performer of the year 2008-09(MindTree Ltd.)

3. Half-yearly award 2008(MindTree Ltd.)

4. Topper in campus learning program conducted by MindTree Ltd

5. School Topper in AISSCE-2001

6. Awarded National Scholarship for getting All India Highest in Science in AISSE 1999