SARAVANAN D

GENERALIST SOFTWARE ENGINEER

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CORE COMPETENCIES

Kernel, Distributed Systems, Databases, Job Scheduling and Networking

Programming: C, C++, Python, Rust
OS: GNU Linux, FreeBSD, VxWorks
Databases: MySQL, MongoDB, SQLite
Hypervisors: XenServer, KVM, QEMU
Debugging: Drgn, BPF, GDB

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EDUCATION

BACHELOR OF ENGINEERING
Computer Science, May 2007
Sathyabama University, Chennai, India

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PUBLICATIONS

- **IOCost: Block Input-Output Control for Containers in Datacenters** | https://doi.org/10.1109/MM.2023.3277783 (IEEE Micro Top Picks 2023)
- **IOCost: block IO control for containers in datacenters** | https://doi.org/10.1145/3503222.3507727 (ASPLOS 2022)
- **CASH: A Credit Aware Scheduling for Public Cloud Platforms** | https://doi.org/10.1109/CCGrid51090.2021.00032 (CCGRID 2021)

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CERTIFICATIONS

Foundations in Computer Science
Graduate Certificate, Aug 2014
Stanford University

Advanced FreeBSD Kernel Internals
May 2016

Systems Software
Graduate Certificate, March 2019
Stanford University

PROFESSIONAL EXPERIENCE

META PLATFORMS, INC   Nov 11, 2019 – Dec 27, 2023
Production Engineer, Kernel   Menlo Park, CA

- Open Source Projects: Linux Kernel, resctl-demo, chef
- Derived sequential, random r/w cost associated with SSD models and tuned cgroup controllers to improve I/O isolation [potential to stack workloads] on most of the fleet
- Stacked [12:1] Control Plane Coordination and Storage service (Zookeeper) workloads of different sizes to save capacity.
- Assisted time sensitive integration of complex server platforms containing latest I/O controllers, NICs, GPUs
- Improved kdump, post-mortem and debugging capabilities of all server platforms deployed at datacenters and edge
- Worked on GRUB boot manager, EFI bootloader used for network booting any server, internal tool using BPF to accurately measure block device latencies to qualify vendors, firmware
- Maintained kernel build infrastructure, testing pool and framework to validate latest **Linux kernels**
- Developed a complex regression suite to ease deployment of user space components and drivers for Gen AI workloads
- Investigated and resolved issues, SEVs impacting deployment of latest kernels

CITRIX SYSTEMS, INC   May 15, 2011 – Nov 8, 2019
Principal Software Engineer   Santa Clara, CA

- Worked on Load Balancers, Application Delivery Controllers (ADC): NetScaler, Citrix ADC.
- **Developed device drivers and kernel customizations** for BSD-like proprietary Operating System.
- Server Platform development activities involving integration of drivers, libraries, firmware, tools and hardware validation.
- Developed supervisory infrastructure to monitor health and extract vital system stats through IPMI, actively participated in FIPS 140 Level 1, 2, 3 Citrix ADC projects.

ALCATEL-LUCENT (Contractor) January 18, 2010 – April 29, 2011
WIPRO TECHNOLOGIES   August 27, 2007 – **April 29, 2011**
Project Engineer (Contractor)   Calabasas, CA
Project Engineer, *Promoted in January 2010*   Chennai, India

- Developed Software for high performance switches and routers.
- Worked extensively on **Real Time (VxWorks) Kernel issues**
- Developed Microprocessor (MPC 8248) profiling utility
- Implemented non-intrusive postmortem dump generation
- Worked on I2c bus driver
- **Prodigy of the Year 2008 Award**
- **Feather in my Cap Award x 2**