

# ARCHAKAM PARAMKUSAM SAGAR

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## Profile overview

With 6 years of experience in the storage domain currently seeking a career in block and file access protocols along with filesystem. Currently working as protocols developer (NFS and SMB) at Huawei, previously worked as block storage developer at Netapp.

Areas: NFS, SMB, ACL's, AUDIT, Virtualization, SCSI, iSCSI.

## PROFESSIONAL EXPERIENCE

### HUAWEI

**Role:** DEVELOPER

**Duration:** 2 ½ Years MARCH (2020) to Present

**Project:** Ransomware detection using AUDIT

- Scope of this project is to detect ransomware attacks using information in audit logs.
- Contributed in generating the audit log information using configured fileops instead of SACL's set on the file and passing this information to the ransomware monitoring buffer.

**Project:** File System default Security Style setup

- Designed filesystem default acl configuration for NFS/NTFS/MIXED/NATIVE security styles.
- Also designed default acl for file system on switching from one security style to another.

**Project:** AUDIT of SMB ops.

- Protocol audit info generation for SMB ops (Remove, SetAttr, Delete).
- Framework for all the ops to generate common audit information.
- Framework to encode audit information to sgl buffers for all ops.

**Project:** AUDIT of NFS ops.

- Worked on the Nfs4 SACL set and get operations.
- Worked on inheritance and sacl set during create op.
- Protocol audit info generation for NFS(v3/v4) ops .
- Sacl evaluation framework for all the NFS ops.

Also worked on RFC compliance tasks for NFS protocol.

## NETAPP

**Duration:** 3 Years JULY (2017) to FEB (2020)

**Project:** SCSI to NVME translation layer

- As part of project worked on translating few SCSI commands to NVME commands
- Also handled Fault injection testing and UT for the project

**Project:** Shared HA for select

- Ontap select is a VM solution that runs on ESXi/KVM hypervisor
- As part of this project worked on developing a shared solution which involves discovering the external array using FreeBSD iSCSI stack and presenting the LUN to the File System.
- Worked on developing login redirect solution which involves storing ip's and redirecting login requests to stored ip's and also implemented persistent UID generation for discovered disks.

**Project:** Persistent reservation implementation for NFS datastore

- As part of this project worked on implementing SCSI-3 persistent reservation for virtual disks carved from NFS datastore.
- Implemented Peterson synchronization algorithm to handle the race condition in case of two nodes accessing the same disk.

Other than projects, I worked on bug fixes in protocol stacks.

## SKILLS

language : C, C++, Python  
Operating systems : FreeBSD, Linux

## EDUCATION

**VIT University**, Vellore, Tamilnadu

**Masters of Technology in Computer Science and Engineering, GPA: 8.32**

May 2017

**ANNA University**, Sri Venkateswara college of Engineering

**Bachelor of Engineering in Computer Science and Engineering, GPA: 6.42**

April 2014

## PERSONAL DETAILS

Date of Birth: 09/07/1993

Gender: Male

Languages known: English, Hindi, Tamil, Telugu

**Declaration:** I do hereby declare that the above information is true to the best of my knowledge

Sagar AP