

Sheshadri K R

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EXPERIENCE

IISc Bangalore

Ph.D Scholar

Aug. 2018 – Present

Bangalore, India

- Designed and implemented Quality of Service aware Serverless platforms for different application domains
- Proposed and developed reliable distributed data stores for Fog-Edge layer

Ericsson India Global Services Pvt. Limited

Research Intern

Jun 2023 - Sep 2023

Bangalore, India

- Proposed and implemented proof-of-concept data-store near 5G Telco Edges

Samsung R and D

Senior Software Engineer

Jun 2017 - Aug 2018

Bangalore, India

- Designed device plugin APIs and test cases for SmartThings Android application.

IIIT Hyderabad

Teaching Assistant - Scripting and computing environments

Aug. 2016 – Nov. 2016

Hyderabad, India

- Designed assignments for Python scripting, shell scripting(bash), grep, sed etc.

Robert Bosch Engineering and Business Solutions

Associate Software Engineer

Sep. 2013 – Sep. 2014

Bangalore, India

- Developed an iPhone application called DeltaApp using Objective C for issuing reminders to water plants.
- Developed an Internet web browser using C++ in Qt framework for embedded systems.

PUBLICATIONS

Hybrid Serverless Platform for Service Function Chains

S. K. R and J. Lakshmi, 16th IEEE CLOUD 2023

Jul 2023

QoS aware FaaS for Heterogeneous Edge-Cloud continuum

S. K. R and J. Lakshmi, 15th IEEE CLOUD 2022

Jun 2022

QoS aware FaaS platform

S. K. R and J. Lakshmi, (STEERS Workshop) IEEE/ACM 21st International CCGrid, 2021

Jun 2021

Elfstore : A Resilient Data Storage Service for Federated Edge and Fog Resources

S. K. Monga, S. K. Ramachandra and Y. Simmhan, ICWS, 2019

Aug. 2019

Dynamic Scaling of Video Analytics for Wide-area Tracking in Urban Spaces

Aakash Khochare, KR Sheshadri, R Shriram, Yogesh Simmhan, 2019 19th IEEE/ACM CCGrid, 2019

Jul. 2019

SELECTED PROJECTS

Hybrid distributed data store - Erasure coding and Replication

Course Project: DS256 - IISc Taught by Prof. Yogesh Simmhan

- Designed and developed a data-store which supports replication and Erasure Coding based on a storage budget.

Implementation of HBase with recovery

Master's project - IIIT-H : Advised by Dr. Vivekanand Vellanki

- Designed and developed a HBase like system which runs on HDFS, supports the standard *put()* and *get()*.
- Implemented two different variations of recovery through Write Ahead Logs (WALs). Used Apache Zookeeper to perform leader election among region servers.

AWARDS

IEEE TCSC SCALE Challenge

May 2019

Issuer : CCGrid, for "Dynamic Scaling of Video Analytics for Wide-area Tracking in Urban Spaces" CCGrid, 2019

- Handled the vehicular simulation using SUMO, where the traffic was overlayed on the IISc Campus.

Best Paper Award

May 2021

Issuer : Serverless To sErvE moRe at Scale STEERS 2021, with CCGrid

CCGrid, 2021

Dean's Award for Academic Excellence, academic year 2016-2017

Nov. 2017

Issuer: IIIT Hyderabad

Hyderabad, India

Merit prize for featuring in top-10 in the CSE Dept 5th and 6th Semester, BIT

Sep. 2011 – Jan. 2012

Issuer : CSE Dept, BIT Bangalore

Bangalore, India

EDUCATION

IISc, Bangalore

Aug. 2018 – Present

*Ph.D, Serverless computing, Function as a Service (FaaS), IoT
Advised by : Dr. J. Lakshmi, CSL, SERC*

Bangalore, India

IIIT Hyderabad

Aug. 2015 – Jun. 2017

M.Tech CSIS

Hyderabad, India

Bangalore Institute of Technology

Aug. 2009 – Jun. 2013

B.E. Computer Science and Engineering

Bangalore, India