

Education:

- Stony Brook University, Stony brook, NY
Masters in Computer Sciences, (December 2010)
- College of Engineering, Pune
Bachelors of Engineer in Information Technology (June 2006)

Expertise:

Security and Compliance in Cloud, Supply Chain Security, DevSecOps, Container Ecosystem, Storage Management

Professional Experience

Jun'2016 – Till Date

IBM TJ Watson Research Center, New York

Senior Technical Staff Member, Master Inventor

- Leading innovations for Software Supply Chain Security, especially in the area of SBOM management, CICD Pipeline security and provenance readiness
- Inventor and Chief Architect for “Code Risk Analyzer” – a DevSecOps solutions on IBM Cloud. This also marked the release of the first DevSecOps controls to be used in the security and compliance framework for the IBM Financial Cloud
- Leading the global Research teams to deliver industry-leading cloud-native security and compliance services and technologies
- Engage with technical leadership in driving strategic direction for security and compliance solution
- Driving innovations in supply chain security solutions, container cloud management, compliance automations for regulated workload
- Cloud Professional Interest Community (PIC) co-chair for IBM Research Globally (2018-2020)

Professional Experience

Aug'2012 – May'2016

IBM Research Lab, India

Software Engineer - Research

- IBM Container Cloud: Design and develop Filesystem-as-a-Service, container migration service
- LVD(Lean Virtual Disk): Design and develop a De-duplicated shared disk image format.
- I2Map: Design and develop Disaster Recovery solution for Virtual Machines in Cloud
- cdCache (Distributed co-operative cache): Architect and Lead for a project to build an efficient caching protocol for distributed storage system

Professional Experience

Jan'2011 – July 2012

EMC-Advanced Storage Division, Cambridge, USA

Senior Software Developer

Led an EMC –Atmos (Cloud Object Store Platform) team focused on performing research and analysis of critical service escalations, developing right solution.

Professional Experience

July 2006 – July 2009

IBM India Software Labs – Systems and Technology Group, Pune

Systems Software Developer

SAN Simulator – Research project with IBM Almaden Research Center. Research and Development of SAN Device simulation modules. Open-sourced under Eclipse Aperi.

Graduate Summer Internship

May 2010 – August 2010

IBM Almaden Research Center, USA

Project Intern

Worked on designing and implementing a Declarative Disaster Recovery planner to provide data resiliency for Files and Blocks in IBM's cloud storage solutions. The design incorporated the features from distributed filesystem GPFS and Panache.

Mentorships:

- Joint Research with Prof. Ayse and her PEACLAB at Boston University
- Mentors Cloud Course at Boston University and Northeastern University (Fall'21, Fall'20, Fall'19, Spring'19, Spring'18)
- Mentors Summer Intern at IBM Research
 - Dev Chauhan (Purdue University): Summer'21
 - Arjun Arunasalam (Michigan University): Intern/Co-op' 19
 - Mustafa Bal (Harvard Univ.): Summer'18
 - Ravella C. Sreenivas (IIT Kharagpur), Sanchit Gupta (IIT Kanpur), Neha Gupta (IIT Delhi): Summer'13

Honors/Awards:

- Outstanding Innovation Award (2022) for delivering differentiating value to IBM Cloud
- Research accomplishment award (2021) for leading the team to deliver DevSecOps service to IBM Cloud with direct business impact for IBM Financial Cloud.
- Recognized as IBM Master Inventor (2021) for mastering the patent process, mentoring broadly, adding value to IBM's portfolio and demonstrating sustained innovation leadership and service
- IBM Outstanding Technical Achievement Awards (2020, 2 awards in 2019) for Research Contribution on IBM Private Cloud, IBM MultiCloud Manager
- IBM Research Division Award (2019, 2018)
- IBM Open-Source Recognition Award for contributions to IBM's strategic open-source projects
- "Excellence@EMC" for significant contribution within first year (2011)
- All India Rank 93 in Graduate Aptitude Test for Engineers (2006)

Activities:

- Presented "CICD Pipeline Security" talks at Cloud Native Security Con at Kubecon'21 LA and Kubecon'EU 2022
- Presented "Role of DevSecOps for Crossplane" at Crossplane Community Day at Kubecon'21 EU
- IBM Cloud Podcast on "Secure Supply Chain", Oct' 21
- Member of Program Committee at Cloud-Native Security Con at Kubecon, NA (2021), International Conference on Cloud Engineering Industry Track (2021, 2018)
- Active member of CNCF/LF open-source working groups
- Peer reviewer for Future Generation Computer Systems Journal 2018
- 'Visiting Teaching Faculty' for subjects – 'Database Management Systems' & 'Advanced Database Management Systems' at College of Engineering, Pune (COEP) in Winter 2007, 2008

Research and Publications:

- Regularly publishes in the top-tier cloud conferences and peer-reviewed journals. More than 20 publications across ACM/Usenix/IEEE conferences
- Active contribution to the IP portfolio for IBM over the years. About 40 patent disclosures FILED in the Cloud Technologies and the related areas including Container Management, Storage, Security, DevOps, Virtualization
- Contributed DevSecOps for Micro-services sections in NIST National Cybersecurity Center of Excellence released a draft for Critical Cybersecurity Hygiene: Patching the Enterprise
- Blog posts at TheNewStack, IBM Developer, IBM Research forums
- Authored IBM RedBook