

## EDUCATION

**Dual Degree (BTech + MTech) Computer Engineering**, CGPA: 8.89/10 (2015 - 2020)  
[Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram](#)

## WORK EXPERIENCE

**Backend Server Engineer**, [Samsung R&D Institute India-Delhi](#) (Jan'21 - Present)

- Tech Stack*: Microservices, Scala, Java, Redis, Postgres, Kubernetes, AWS, CDN, Cloud System Design
- Worked on microservice based softwares, which collects data from several continents to empower Samsung TV+ services. Added features for improved monitoring of data quality.
- Developed a new system to process data in any json format for expansion of core business. Also ensured easy integration of the newly created system into existing ones.
- Redesigned core systems which improved data correctness to >99% and also provided a better scalability with reduced processing time. The system processes more than 100Gb of data every day.
- Fixed legacy issues in a critical service which minimized 5xx errors on servers. The system uses CDN and serves more than a million requests a day directly to active Samsung's Smart TVs.
- Performed failure identification and recovery at pod level in Kubernetes (infrastructure level using AWS CLI).
- Worked with REST APIs
- Innovation*: Awarded 'Best In Development - Business Idea' at the organizational idea-demo. Won a prize for a chosen concept in the department-level ideathon. Initiated the conduct of events and ideathons to promote innovation culture in the department. This contributed to 5+ POCs from our department.

**Network Systems Researcher** (Final Year Project/ Master's Thesis), [IIITDM Kancheepuram](#) (Nov'19 - Jul'20)

- Tech Stack*: Python, FPGA (Programmable hardware), Verilog, Vivado, Network System Design, IPv4 Packet Forwarding
- Developed a FPGA-based Multi-match Packet Classification Architecture for Network Intrusion Detection Systems.
- Achieved 5.9x higher performance while consuming 5x lower resource. Also enabled configuration time hardware scaling.
- Work submitted to the journal of Computer Systems Science and Engineering (A short summary of work [here](#)).
- Supervised by [Dr Noor Mahammad SK](#), supported by Ministry of Electronics and Information Technology, Govt. of India.

**Cryptography Research Intern**, [IDRBT, Hyderabad](#) (May'19 - Sep'19)

- Tech Stack*: Python, Cryptography
- Researched on Data Integrity and Deduplication in fog to cloud based IoTs ([link](#)), Supervised by [Dr P Syam Kumar](#).
- Work was submitted to the Computer Networks journal in Elsevier.

**Network Analyst** (Intern), [GAVS Technology](#) (May'18 - Jul'18)

- Tech Stack*: Lua, C++, Kafka, Solr
- Established data pipeline from open source packet sniffer to Solr server, transferring hundreds of records per second.

**Design Thinker** (Waste Management Systems), [IIITDM Kancheepuram](#) (Jul'16 - Nov'17)

- Tech Stack*: Design Thinking
- Worked towards minimizing litter. Spent hours sitting close to trash cans observing how people behaved around them.
- Done stakeholder analysis and feedback loop analysis for the same. Work supervised by [Dr. Sudhir Varadarajan](#).

## SKILLS

Programming Languages	Scala, Python, Java, C++
Cloud and Software Technologies	Microservices, System Design, Kubernetes, Docker, AWS, CDN
Databases	Redis, PostgreSQL
Tools	Git, Jenkins, Kibana, Grafana, Sensu, IntelliJ, PyCharm, Visual Studio
Additional Skills	Research, Innovation, Event Management

## CERTIFICATIONS & AWARDS

UPMS Award (Best In Development - Innovation, Business Value & Usability), Samsung R&D Institute	(2023)
Software Certification - Professional, Samsung R&D Institute	(2023)
2 Spot Awards, Samsung R&D Institute	(2023)
Software Certification - Advanced, Samsung R&D Institute	(2021)
Ford CSAM IoT Security Paper Presentation ( <a href="#">link</a> ), Won Best Paper Award	(2019)