Srinidhi N — Résumé

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Education

Academic Qualifications

- **Amrita University** — **Bangalore**
  B.Tech Computer Science and Engineering , CGPA of 8.91/10 — *2012–2016*
- **Chennai Mathematical Institute** — **Chennai**
  M.Sc. Computer Science, CGPA of 9.41/10 — *2018–2020*
- **Chennai Mathematical Institute, University of Paris** — **Chennai, Paris**
  PhD, Distributed Algorithms — *2020–2024*
  Advised by **Constantin Enea (LIX), Mandayam Srivas (CMI)**

Masters thesis

Distributed algorithm testing

Testing Epaxos distributed consensus algorithm using state of the art PCTCP(Probabilistic Concurrency Testing with Chain Partitioning) testing method. This involves instrumenting Epaxos in an existing implementation of PCTCP and analyzing the outcome.

Doctoral thesis

Automatic testing of distributed systems implementations

Work on bridging the gap between theory and practice of testing distributed systems. Currently working on a tool to help developers write unit tests for implementations of distributed protocols. The tool enforces scenarios (unit tests) described by developers by proxy-ing and filtering all messages exchanged between different nodes. Using the tool, we tested open source implementations of Tendermint (154k LOC) and Raft (16k LOC) and were able to find bugs.

Previous Employment

- **BookMyShow (Bigtree Entertainment)** — **Bangalore**
  Software developer — *Sept 2016–April 2018*

  Was responsible for the development and maintenance of microservices that provide ticketing services to customers in Indonesia. Later moved on to cloud infrastructure maintenance with AWS and continuous delivery. Technologies used were Docker, Ansible, Python web frameworks
- **Unacademy** — **Bangalore**
  Software Development Engineer — *May 2018–July 2018*

  Pursued a DevOps role and set up a continuous delivery pipeline to deploy services to AWS cloud using Terraform and Ansible. Developing libraries in Golang for use within the organization.

Workshops

- **SAT, SMT workshop**
  December 2019, IIT Bombay

  Presented a poster on smart contract verification in the Libra blockchain. The workshop consisted of talks related to advances in SAT, SMT solvers and techniques used for verification along with hands on sessions.

Awards

- **CMI Medal of Excellence** in recognition of my outstanding performance in graduate school.