

# M S Nishanth

## Contact

msnishanth9001.github.io

Hyderabad,  
India

mobile  
+91-8433775541

msnishanth9001@gmail.com

## Languages

English, Tamil,  
Hindi, Malayalam.

## Programming Languages

C, C++,  
Python, Go,  
Rust\*,  $\LaTeX$

## About Me

Software Engineer at F5, India. I am a part of DNS team for the cBIP where I contribute towards upgrading the DNS potential for the Classic BIGIP in various categories such as Cache, Load Balancing & DNS Resolution.

## Qualification

2020– \* **Software Developer** at F5

Hyderabad, India

2018– 2020 **M.Tech** in Computer Science and Engineering

IIT Hyderabad

2013– 2017 **B.E** in Computer Science and Engineering

Anna University, Tindivanam

## Skills

### PROGRAMMING

Skilled in Python and able to adapt quickly to new languages.

### FRAMEWORK

Perforce, Git, Mlflow

### TOOLS

Wireshark, Vim, GDB, VSCode, Postman, Numpy, SciKit, Pandas, Matplotlib,  $\LaTeX$ .

## Industry Experience

Sep' 22

### cBIGIP - Oblivious DNS-Over-HTTPS

Developed the DNS resolution via ODOH. Had the responsibility of drafting SDD and understanding customer use-case. crafted the TMA. also included creating the ODOH framework for testing and the HPKE cryptography.

Aug' 22 - \*

### Security Ninja

Responsible for TMA to materially help with F5's SDLC by helping teams write and perform TMAs and advocate for secure design. Security Ninja Reviewer for 24 TMAs. Security Focal for 3 TMAs.

Mar' 22

### cBIGIP - Unbound Enhancements

Add Unbound support of new features (PREFETCH, SERVE\_EXPIRED and MIN\_RTT) onto Classic BIGIP for the validating, recursive, caching DNS resolver. This allows the BIGIP to retain records in a fashion desired by the provider after the TTL expiry of RR which decreases the latency.

Aug' 21

### cBIGIP - GeoIP

BIGIP identifies the geographic location of a client or web application user to provide better service based on GeoIP data. Had the responsibility of Migrating to new database for more granular accuracy, which included traversing a bigger pile of data to identify the geo-location.

## Projects

Sep' 23	<b>Oblivious DNS Over HTTPS</b> A ODOH Lib for client written in python framework. A fast reliable lib written to communicate DNS on the wire using the latest standard of communication model to ensure Privacy and Secrecy	GitHub Repo
Feb' 23	<b>OWASP TOP10 ML</b> I contribute in a Global community which focuses on addressing the Attacks and Mitigation strategies possible for the ML models.	OWASP
Aug' 19	<b>Structured Optimal Transport [SOT]</b> Optimal Transport method to solve Colour Transfer problem. Achieved using a sub-modular function on the combined structural information from segmentation on images and the distribution of colours in images. This can be extended to language modelling, French to English translation without the word-meaning.	Thesis
Aug' 18	<b>Hierarchical approach to mutual exclusion in Distributed Computing</b> An efficient implementation of hybrid mutual exclusion algorithm for distributed systems by combining Raymond's and Maekawa's algorithms by multiplexing between them when communicating within and across clusters, based on load, latency and throughput.	—

## Honors & Awards

Sep' 23	<b>1st, Technovate'23 CatchTheFlag</b> Participated in CTF and successfully solved 11 challenges in 3 hrs and won the CTF against 20 teams.	F5 Innovation India
May' 23	<b>BeF5 Award</b> Awarded for contribution towards the innovation Project Inferno.	F5 Global
Mar' 23	<b>3rd, Security Hackathon</b> Participated in a month-long Security Hackfest and had the honor of presenting eBPF Solution among a total of 80 projects and submissions.	F5 Global
2018	<b>99.2% percentile, GATE</b> All India Rank 960 (107893 total candidates) in GATE-CS 2018.	GATE, India

## Position of Responsibility

2021	<b>BeF5 Day - Organizing Committee</b> Shared responsibility in organizing of #BeF5 day to conduct various events and sole responsibility of making and production of video premiere of the Event.	F5 Innovation India
2020	<b>Teaching Assistant</b> TA for courses on Foundations of ML and Applied ML where the role involves creating, grading and evaluating assignments.	IIT Hyderabad
2016	<b>Treasurer of CETA Club, UCET</b> As the Treasurer, I assumed the crucial role of orchestrating and meticulously overseeing the budgetary aspects of events, including the Symposium and International Conference, for the Academic Year 2016-17 at Anna University, Tindivanam.	Anna University, Tindivanam