Hyderabad, India

# M S Nishanth

#### Contact

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### **About Me**

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

## Qualification

2020- \* **Software Developer** at F5

msnishanth9001@gmail.com<sup>2018 –</sup> 2020 Masters in Computer Science and Engineering

2013 – 2017 Bachelors in Computer Science and Engineering Anna University, Tindivanam

## Languages

English, Tamil, Hindi, Malayalam.

## Programming Languages

C, C++, Python, Go, Rust, LATEX

## **Skills**

#### **PROGRAMMING**

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

#### **FRAMEWORK**

Pytorch, 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 **Oblivious DNS Over HTTPS** 

GitHub Repo

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

Feb' 23 **OWASP TOP10 ML** 

OWAS

I contribute in a Global community which focuses on addressing the Attacks and Mitigation strategies possible for the ML models.

Aug' 19 Structured Optimal Transport [SOT]

thesis

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.

Aug' 18 Hierarchical approach to mutual exclusion in Distributed Computing

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 1st, Technovate'23 CatchTheFlag

F5 Innovation India

Participated in CTF and solved 11 challenges in 3 hrs and won the CTF.

May' 23 **BeF5 Award** 

F5 Global

Awarded for contribution towards the innovation Project Inferno.

Mar' 23 **3rd, Security Hackathon** 

F5 Global

Participated in the month long Security Hackfest and Presented the eBPF Solution.

**99.2% percentile, GATE** 

GATE India

All India Rank 960 (107893 total candidates) in GATE-CS 2018.