

# MS Nishanth

## Contact

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## Languages

English, Tamil,  
Hindi, Malayalam.

## Programming Languages

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

## About Me

Software Developer 2 at F5, India. I am part of DNS team for the Classic BIG-IP. I contribute towards upgrading the DNS potential for the Classic BIG-IP in: Cache, GSLB & DNS Resolution.

## Qualification

2020– *	<b>Software Developer 2</b> at F5	Hyderabad, India
2018– 2020	<b>M.Tech</b> in Computer Science and Engineering	IIT Hyderabad
2013– 2017	<b>B.E</b> in Computer Science and Engineering	Anna University, Tindivanam

## Skills

### PROGRAMMING

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

### FRAMEWORK

Machine Learning. DNS and TCP/ IP.

### TOOLS

Perforce, RBT, Git, Wireshark, Vim, GDB, Pytorch, Jira, Mlflow, Postman, Numpy, SciKit, Pandas, Matplotlib,  $\LaTeX$ .

## Industry Experience

Sep' 22	<b>Classic BIG-IP - Oblivious DNS-Over-HTTPS</b> Developed the DNS resolution via ODOH -RFC 9230. Had the responsibility of drafting SDD, TMA and understanding customer use-case. Also worked on creating the ODOH framework for testing.
Aug' 22 - *	<b>Security Ninja</b> 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	<b>Classic BIG-IP - Unbound Enhancements</b> Add Unbound support of new features (PREFETCH, SERVE_EXPIRED and MIN_RTT) onto Classic BIG-IP for the recursive, caching and Net DNS Resolvers. This allows distributing of RR by the service providers even after their expiration, decreasing the latency for the client's DNS resolution.
Aug' 21	<b>Classic BIG-IP - GeoIP</b> BIG-IP 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 data-base for more granular accuracy, which included traversing a much larger DB to pinpoint 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 Capture The Flag</b> Participated in CTF and successfully solved 11 challenges in 3 hrs against 20 teams.	F5 Innovation India
May' 23	<b>BeF5 Award</b> Awarded for the contribution towards innovation at 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 amongst 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 production of video premiere of the Event.	F5 Innovation India
2020	<b>Teaching Assistant</b> TA for the courses on -Foundations of ML and -Applied ML where the role involved 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