

M S Nishanth

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SKILLS

PROGRAMMING

Programming Proficiency:

Python • C • C++ • Shell

Familiar:

Golang • Rust • AS3 • \LaTeX •

PHP • CSS • HTML

TOOLS:

Git, Kubernetes, Wireshark, Vim, GDB,
Postman, Perforce, RBT, Pytorch, Numpy,
Pandas, Matplotlib, Jira, Confluence.

SOCIALS

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Github:// msnishanth

LinkedIn:// msnishanth

OPEN SOURCE

OWASP ML TOP10 |

ODoH Client |

EDUCATION

IIT HYDERABAD

Masters in CS 2018-20 | HYD, India

UCET, ANNA UNIVERSITY

Bachelors in CS 2013-17 | TVM, India

COURSEWORK

GRADUATE

Distributed Computing
Convex Optimization
Bayesian Data Analysis
Applied Machine Learning
Advanced Data Structure and Algorithms

UNDERGRADUATE

Information Retrieval
Operating Systems
Operating Systems
Design and Analysis of Algorithms
Cryptography and Network Security

EXTRA-CURRICULAR

F5 Day'21 Organizing Committee.
CALDAM'18 Conference Core Team.
Secretary - CSE, UCET 2015.

INTERESTS

If I'm not coding I'm usually reading books,
staring at my fish tank, losing RR in valo.
Loom |

EXPERIENCE

F5 | SOFTWARE ENGINEER 2

Sep 2023 - Present | HYD, IN

- Improved **Traffic Classification** by 3% over CEC Engine, by proprietary Deep Learning Model deployed on CPU.
- Reduced 96% human effort** for IPS & TC IM Package release by automation of tasks such as addition, verification and publication through CI/CD pipelines.

F5 | SOFTWARE ENGINEER 1

Sep 2020 - Sep 2023 | HYD, IN

- Designed & Implemented ODoH, HPKE & SVCB** capability on cBIP DNS solution. Compliant with RFC 9320, 9180, 9460. ODoH uses HPKE for constructing odohConfig and its discovery by SVCB DNS resolution.
- Boosted DNS Monitor Probing by 20%** by introducing batch processing queue by utilizing modified knuth shuffle.
- Implemented DNS Cache Enhancements resulting in **Increase of RPS by 10%**.
- Improved RPS by 35%** for indeterminate and insecure domain names on Validating DNS Resolver by using fast cache Lookup.
- Achieved 88% increased precision** in GeoIP by seamlessly transitioning to GeoIP dbv3, while maintaining lookup time.

IIT HYDERABAD | TEACHING ASSISTANT

July 2018 - Aug 2020 | HYD, IN

- Evaluated** 400 students cumulative, for courses ADSA, FML, PMML at IIT HYD.
- Maintained high-performance GPU cluster** with 128GB RAM and 1TB GPU capacity, ensuring optimal performance and up-time for compute-intensive workloads.

RESEARCH

STRUCTURED OPTIMAL TRANSPORT | RESEARCHER •

Aug 2019 – July 2020 | IIT Hyderabad, India

Worked with **Prof. Saketha Nath** on **Optimal Transport** to encapsulate the sub-structure of space by introducing the submodularity, which is a nonlinear function, using a Block Diagonal Representation of the samples. Applied successfully to color-transfer problem with no training cost and 20% lower OT Cost.

HIERARCHICAL MUTUAL EXCLUSION | RESEARCHER •

Aug 2018 – Nov 2018 | IIT Hyderabad, India

Worked with **Akash Banerjee** on a hybrid **mutual exclusion algorithm** for distributed system when communicating within and across clusters and achieved 15% lower latency than Raymond's and Maekawa's algorithms.

HONORS & AWARDS

2023	1st / 20	CTF at F5 India
2023	top 50/9000	F5 Engineering Fellow
2023	3rd / 300	Security Hackathon at F5 Global
2018	99.2 Percentile	GATE'18 -Graduate Aptitude Test in Engineering

SCHOLARSHIP AWARDS

2018-20	MHRD [2years] - Ministry of Human Resource Development, India
2013-17	PMSS [4years] - Prime Minister's Scholarship Scheme, India