M S Nishanth

+91-8433775541 | msnishanth9001@gmail.com | msnishanth9001.github.io | linkedin.com/in/msnishanth

Education

Indian Institute of Technology   *Hyderabad, India*
MTech in Computer-Science & Engineering   *Sep 2018 – Aug 2020*

Anna University College of Engineering   *Tindivanam, India*
BE in Computer-Science & Engineering   *Sep 2013 – Aug 2017*

Work Experience

F5   *Hyderabad, India*
Software Engineer I   *Sep' 20 – **

- I contribute to the DNS solution of Classic BIGIP, on the development and maintenance of GeoIP, DNS Cache & Resolver modules. This includes 1.Working with customer on understanding their deployment model and customer issues. 2.Coordinating with US counterpart team on solution delivery. 3.Designing solution framework. 4. TMA, materially help with F5's SDLC by helping teams write and review TMAs and advocate for secure design.
- Worked with Poland team on the Development and Functional Test of Journeys Application, which is the migration tool from Classic BIGIP to Modular BIGIP.
- Telemetry in BIGIP. Collaborated with a 4-person team To understand the telemetry options in cBIP and its Integration towards Splunk
- **Technical Skills:** C, C++, Python, Ubuntu, Perforce, Git, Ubuntu, Lucid chart, TMA.
- **Soft Skills:** Teamwork, Time Management, Communication, Context switching, Presentation skills, Collaborate across time-zones.

University Projects

Structured Optimal Transport   *Hyderabad, India*
IIT Hyderabad   *Jun' 19 – Aug' 20*

- A method to include structural information in OT. Applying this method for Colour Transfer problem, which is quite similar to Style Transfer problem. We achieve this by using a sub-modular function on the combined structural information from segmentation on images and the distribution of colours in images. This can be further extended to language modelling or the OT itself could be used as a cost metric in different scenarios. Ex- French to English translation without knowing the word-meaning.
- **Technical Skills:** Python, Overleaf, LaTeX, Probabilistic ML Models.
- **Soft Skills:** Time Management, Presentation skills, Report writing.

Super SloMo: High Quality Estimation of Multiple Intermediate Frames for Video Interpolation.   *Hyderabad, India*
IIT Hyderabad   *Jan' 19 – Apr' 19*

- Intermediate frames are generated for each pair of frames in the original video hence producing good slow motion video experience while preserving the original information of objects in the video without pixelating. The Optical flow information is determined using a U-Net architecture. This information is then passed onto a CNN which uses a backward warping bi-linear function. Adding time-flow interpolation and masking this with the visibility maps of the pair of source frames, the intermediate frames are generated.
- **Technical Skills:** PyTorch, Interpolation techniques, openCV, Visibility maps, CNN,.
- **Soft Skills:** Time Management, Presentation skills, Report writing, Logical reasoning.

Hierarchical approach to mutual exclusion in Distributed Computing   *Hyderabad, India*
IIT Hyderabad   *Aug' 18 – Nov' 18*

- An efficient implementation of a hybrid mutual exclusion algorithm for distributed systems by combining Raymond's and Maekawa's algorithms by multiplexing between them when communicating within clusters and across clusters, based on load, latency and throughput. As part of the course project for Distributed Computing- CS5320.
- **Technical Skills:** C++, Exclusion Algos, Linux.
- **Soft Skills:** Time Management, Presentation skills, Report writing.

Irony detection in English tweets   *Hyderabad, India*
IIT Hyderabad   *Aug' 18 – Nov' 18*

- Identification of features: 1.Lexical features [characteristic of the tweet], 2.Syntactic features [entity relationship], 3.Sentiment features [lexicon and polarity by existing dictionary], 4.Semantic features [word embedding]. And understanding the characteristics of the tweet using these features, an SVM based classifier was built to detect Irony.
- **Technical Skills:** Python, feature extraction, data pre-processing, ML algorithms.
- **Soft Skills:** Time Management, Presentation skills, Report writing.

Skills

Languages	C/C++, Rust*, Python, PHP, HTML/CSS, Ansible, PHP, JavaScript.
Misc.	Linux, Shell (Bash/Zsh), MLflow*, VIM, Wireshark, GDB, Postman, LaTeX, Microsoft Office, Perforce, Git.
Soft Skills	Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation.

Achievements

2023	**3rd**, Security Hackathon. Presented eBPF Solution.	*F5*
2018	**99.2% percentile**, GATE	*India*
2017	**3rd**, Paper presentation at National Symposium from Adi Parashakti College	*India*
2017	**Winners**, Zonal Tennis Competition, Anna Univ	*Anna Univ*

Co-Curricular

Aug' 22 – *	**Security Ninja**, Responsible for TMAs. Materially help with F5's SDLC by helping teams write and review TMAs, by Advocating for secure design.	*F5*
Feb' 21	**Be-F5 Day Organizing Committee**, Shared responsibility in organizing of #BeF5 day to conduct various events and sole responsibility of making and production video-premiere for the Event.	*F5, Hyderabad*
2018 – 20	**Teaching Assistant**, TA for courses on Foundations of ML and Applied ML where the role involves creating, grading and evaluating assignments.	*IIT Hyderabad*
Feb' 20	**Organizing Committee of CALDAM'20**, For the International Conference on Algorithms and Discrete Applied Mathematics, shared various responsibilities in organizing Conference successfully.	*IIT Hyderabad*
2015 – 17	**Graphic Designer- Head at CETA Club**, Responsibility to Create Brochure, Flux, Poster designs & Website and it's maintenance for all Symposium, Conference and other Events conducted by the CETA Club and the Department of CSE at UCET.	*Anna Univ, Tindivanam*
2016 – 17	**Secretary of CETA Club at UCET**, Responsibility of Conducting and Managing all the events(Symposium, Conference and other Events) organized by the CETA(the official Club of Department of CSE) at UCET.	*Anna Univ, Tindivanam*
2015 – 16	**Treasurer of CETA Club at UCET**, Financial Responsibility for all the events(Symposium, Conference and other Events) organized by the CETA(the official Club of Department of CSE) at UCET.	*Anna Univ, Tindivanam*

Interests

Gaming	Competitively play MMORPG games, and also design games.
Photography	Nature photography. (still learning the curves :D)
Aquascaping	Enjoy creating and maintaining nature Aquascapes -Fresh Water.
Books/ Manga	Interested in Comics, Books and Novels on SciFi/ Fiction.

Spoken Languages

English, Tamil, Hindi, Malayalam