

# YERRAM DHARANIDHAR REDDY

Los Angeles, California | (213) 656-4686 | yerramdharanidhar@gmail.com | linkedin.com/in/dharanidharreddy/

## EDUCATION

**University of Southern California**  
**Master's in Computer Science**

Los Angeles, California  
August 2023-Present

**Amrita Vishwa Vidyapeetham**  
**Bachelor's in Computer Science (CGPA : 9.22 / 10.0)**

Bangalore, India  
January 2020-December 2020

## WORK EXPERIENCE

**VMware Software India Pvt. Ltd**  
**Member of Technical Staff - 2**

Pune  
July 2022-July 2023

- led the Data-Migration Fault injection initiative to resolve issues of NSX-T upgrade by 30%
- Developed a framework in python for NSX-T CI/CD pipeline to capture and report real-time data migration issues could happen in NSX-T upgrade and also provided a dashboard leveraging Angular for management to get a better visualization
- Designed a fault injection python framework deploying chaos-mesh in kubernetes cluster helped in performing fault resiliency check of NSX-T on SaaS
- Enhanced the Test Framework and Smart tools leveraging python, increasing the productivity of the team
- Served as a Mentor and Project guide for all India VMware New Grads in Bootcamp session in the years 2021

**VMware Software India Pvt. Ltd**  
**Member of Technical staff - 1**

Pune  
July 2020-July 2022

- Created API-tizer, a smart generic python plugin runs as a daemon and computes all the API intent and Realization performance of the appliance and pushes it to an observability tool
- Enhanced framework and development of Mjolnir (a platform-independent fault injection python package). Mjolnir was accepted as a VMware fling and now available to public
- Constructed a visualization tool called API-coverage. Tool captures all the APIs covered in CI/CD pipeline jobs and analyze the API usage and coverage through an UI
- Spearheaded the optimization of Ansible Test modules for NSX-T Application, resulting in a 50% reduction in execution time and enhanced the quality of modules, ensuring a seamless experience for customers
- Developed Corfu-universe Java Framework for simulating Corfu-DB testing in NSX-T QE framework, ensuring high-performance and seamless adoption
- Mentored an intern to deal with smart execution and runtime optimization in NSX-T CI/CD framework using an AI model. Reduced the test execution time by 30%
- Served as a Mentor and Project guide for all India VMware New Grads in Bootcamp session in the years 2021

**VMware Software India Pvt. Ltd**  
**Role: RnD and Xlab's Intern Project: MITOSIS**

Bangalore  
January 2020-July 2020

- Designed and implemented a kernel module in C VMkernel code, dumps EPT (Extended Page table) when required
- Implemented a python script to measure the impact of page-table misplacement in ESXi with multiple NUMA nodes
- Automated Python scripts to parse through the page dump; provide valuable insights on the page table placement
- Created bash scripts to run memory benchmarking workloads (Memcached, GUPTS, etc.) to capture the performance of page table placement in ESXi and generate a consolidated report
- Acquired skills- Linux, ESXi VMkernel, Operating systems, Shell scripting, Python, Memory benchmarking

**CDOT (Centre for Development of Telematics)**  
**Role: R&D Intern**

Bangalore  
May 2018-July 2018

- Designed a data synchronization model between master server and the local slave servers for infotainment systems and devised a python Django-based application for project
- Built a Python-based central server prototype to efficiently store and manage a wide range of railway media content in XML for infotainment systems
- Developed Python-based local slave server to store location specific media and sync with central server when connected to internet. Local server is leveraged by customers XML based mobile app to watch media with intra network

## TECHNICAL SKILLS

- Programming Languages: Python, SQL, Java, Shell scripting, Golang (basics)

- Domains: OpenCV, Databases (MySQL, MongoDB, CorfuDB, RethinkDB), Data Structures and Algorithms, Web Development (Django, Flask, Spring Framework), Computer Networking, AWS, ESXI, NSX-T, V-Center, Jenkins, JIRA, AWS, Kubernetes, Docker, Ansible, Deep Learning, Machine Learning

## ACADEMIC PROJECTS

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**Bird Audio Classification using DL Techniques (github)** Bangalore  
**Deep Learning using MFCC features** November 2019-November 2019

- Engineered a deep learning classified model in python and tensorflow, trained to detect the species of a bird based on the extracted MFCC features from its audio

**Multimodal medical image fusion using wavelet transform (github)** Bangalore  
**Computer Vision and Image Processing** September 2019-September 2019

- Performed Image fusion of CT and MRI images of brain to give a consolidated view of brain and head leveraging wavelet transform and min-max normalization technique

**Amritahub (github)** Bangalore  
**Web Development** August 2019-August 2019

- Constructed an intra-college social networking platform employing Angular and the Django web framework, fostering effortless sharing and communication of college-related activities among students and teachers

## KEY ACHIEVEMENTS

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- Recognized with VMware EPIC2 AT-OUR-BEST ACHIEVE award in the year 2022 for Data Migration Initiative
- Recognized with 2 VMware EPIC2 AT-OUR-BEST awards in 2021 consecutively for exceptional performance
- Honored with BEST CODE PRACTICES award in the new-grad bootcamp session
- Key Speaker in Robotics Workshop and Seminars conducted by ACROM (2017, 2018, 2019)
- Top 3% of Indian teams at Nullcon Hackim, an International Capture the Flag event, 2019
- Lead the Organizing committee for RASE'19, a national level robotics competition, 2019
- Co-Founder and member of biOs-Bangalore Cybersecurity club (2019)
- Selected as Joint Secretary of Amrita Club for Robotics and Mechatronics(ACROM). (2018-2019)
- Finalist in India Police Hackathon conducted by State police of Karnataka 2019
- Finalist in the SLAC Hackathon organized by Honeywell 2019
- Took part in Developer's weekend BLR conference 2018, sponsored by Intel
- Amrita University Scholarship holder (90% fee waiver), 2016-2020

## CERTIFICATIONS

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- Neural Networks and Deep Learning course by DeepLearning.AI - 2021
- AI Accountability Essential Training - 2021
- Ansible and Networking foundations - 2020
- Machine Learning Specialization by Stanford University - 2020
- Cloud Computing Concepts course by University of Illinois at Urbana-Champaign -2020