

Nishanth R

☎ (+91) 7349036419 | ✉ career.nishanth@gmail.com | 🏠 nishanth.software | 📺 AllMight2099 | 📄 nishanth-r-6b1859185

Education

Indian Institute of Technology, Roorkee

UNDERGRAD

- Winner - Best Hardware Hack, HackViolet 2021

Roorkee, India

July 2019 - Expected May 2023

Experience

Mentee - Linux Foundation Mentorship Program

Remote

KUBEARMOR 🏠 - GO, C, EBPF, KERNEL DEVELOPMENT

September 2022 - November 2022

- Enabled portability of KubeArmor's BPF system monitor to support multiple kernel versions
- Leveraged BTFGen and libbpf-go to ship BTF Files with KubeArmor Code for kernels not supporting CO:RE

Platform Engineering Intern

Bangalore, India

MUDREX 🏠 - GO, TERRAFORM, JENKINS, AWS

June 2022 - September 2022

- Implemented command as part of an internal CLI tool that builds and automate seed job creation on Jenkins
- Integrated an automation tool to review changes to pull requests containing Terraform files
- Enabled a highly available Prometheus and Grafana setup by integrating Thanos thereby reducing maintenance costs by 60%

Software Engineering Intern

Bangalore, India (Remote)

HEVO DATA 🏠 - JAVA, APACHE KAFKA, DJANGO

September 2021 - December 2021

- Improvised Stripe integration with the billing platform with enhanced user metrics
- Implemented an automated email notification system and integrated the same with the main infrastructure in Kafka
- Ensured stability by adding automation tests in line with **Agile methodology**

Software Development Engineering Intern

Remote

UNIACCO 🏠 - DJANGO, REACT, SQL

October 2020 - December 2020

- Worked on the greenfield **Django** backend of the **UniCreds** website 🏠
- Worked on implementing custom user roles for the UniCreds CRM in **MySQL** and **Python**
- Implemented auth flows using **JWT tokens** and **Google OAuth**

Projects

Gasper

SDSLabs

GO, PLATFORM AS A SERVICE (PaaS), REDIS

August 2022 - Present

- Gasper is an intelligent Platform as a Service (PaaS) used for deploying and managing applications and databases in any cloud topology
- Working on replacing Redis with BadgerDB by implementing Raft consensus to maintain replicated states across all nodes
- Wrote end to end tests to check and ensure resiliency and robust-ability of the product

Katana

SDSLabs

KUBERNETES, DOCKER, CONTAINER ORCHESTRATION

March 2021 - Present

- An attack-defence CTF platform with cloud based deployment infrastructure inspired by container orchestration tools and DEFCON CTF patterns
- Implemented network policies via Egress that serve to secure the cluster from malicious behaviour within the cluster

RusticOS 🐛

SDSLabs

RUST, OPERATING SYSTEM

December 2020 - Present

- A lightweight, monolithic **x86-64 kernel** written in **Rust** modelled after the linux kernel
- Implemented a few syscalls and scheduler for the processes to have a basic kernel with minimal features

Quizio

SDSLabs

REACT, ZUSTAND, MONGODB, EXPRESS, TYPESCRIPT

January 2022 - May 2022

- Quizio is a platform built to conduct online tests among the students of IITR
- Implemented the **Quiz Creation Flow** while integrating it with the backend

Rootex 🐛

SDSLabs

C++, LUA, IMGUI

April 2020 - May 2020

- A 3D multi threaded game engine written in **C++** and **Lua**
- Integrated the **ECS architecture** into the game engine and enhanced the GUI

Skills

PROGRAMMING LANGUAGES | FRAMEWORKS | TECH STACKS

C · eBPF · Go · C++ · Java (Core) · Apache Kafka · Javascript · NodeJS · Typescript · Rust · Docker · Kubernetes · ReactJS · ExpressJS · Laravel · PHP · Python · Qiskit · Django · Linux Terminal · Git/Bash · Github · Cirq · Tensorflow

Extracurricular Activity

SDSLabs

IIT Roorkee, India

CORE MEMBER

January 2020 - Present

- A student run technical group that encourages and promotes the development of technology and innovation throughout the campus
- Worked on multiple open-source production ready projects
- Conducted workshops and lectures on various concepts within the campus

WatchOut! News Agency

IIT Roorkee, India

EDITOR

October 2019 - Present

- Official media and journalistic body of IIT Roorkee
- Wrote articles on issues pertaining to the campus and on multiple insightful topics