ANUP SHARMA

Software developer | GSoC 23 @ Linux perf tool | System Engineering

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LinkedIn: https://www.linkedin.com/in/anup-sharma1/ **Github:** https://github.com/TwilightTechie

Location: Bengaluru, India **Google Scholar:** link

WORK EXPERIENCE

Member of Technical Staff 2 | Nutanix Technologies **Nov 2023 - Present**

- Currently working on Insights Data Fabric (IDF) - An In-Memory Data Store and Cache, built on top of Cassandra, a Key - Value based Data Store.
- Enhanced the caching logic for every shard query read of time range data of entities from distributed IDF by reducing load on post processing with pre - filtering of entities. Benchmarks showed a 6 - 8X improvement in query latencies.
- Managing on-call responsibilities to deliver customer support, ensuring comprehensive assistance for issues related to Insights Data Fabric (IDF).
- Working on AI based Metrics Anomaly detection tool to improve observability and auto RCA framework for oncalls.

Embedded Software Engineer | Maxlinear Technologies **Sep 2022 - Nov 2023**

- Responsible for developing and improving the Linux kernel device driver used by millions to access the internet through WIFI cards.
- Wrote firmware code, implementing features, and conducting thorough testing and debugging to ensure proper functionality.

Google Summer of Code Student [LINK] | GSOC @ The Linux Foundation [LINK] **Jun 2023 - Aug 2023**

- Developed Firefox Profiler Converter for Linux Perf Tool, enabling seamless integration and advanced performance visualization on Linux OS.
- Utilized perf script python APIs to build the converter and host the Gecko Profile data on a local server.
- Understanding perf tool, eBPF and tracing. **[LINK]**

Linux Kernel Mentee [LINK] | LKMP @ The Linux Foundation [LINK] **Mar 2023 - May 2023**

- Modified the driver code to accommodate the dt-binding, as well as defined the necessary bindings for proper device tree integration. **[LINK]**
- Improved my understanding of networking code, learned how to use semantic patching tools, and developed driver code along with corresponding device tree bindings.

OPEN SOURCE CONTRIBUTION

Accepted Patches Linux: Link **OpenClaw/AgentGateway PR:** Link **Conf Talk:** Link

EDUCATION

Dibrugarh University (DUIET) ***B.Tech. Electronics and Communications Eng.***

Assam, India **Jul 2018 - May 2022**

PROJECTS & PUBLICATIONS

IoT-based Hydroponic system | YOUTUBE [LINK TO PROJECT]

- Developed on ESP-32, Processes incoming data from sensors and transmits the processed data to the cloud servers via built-in Wi-Fi.

A Robotic System for Disinfecting an Area | PATENT GRANTED [LINK TO PROJECT]

- Integrated sensors and actuators into the robotic system to enable real-time data collection and precise control of disinfection processes.

Photonic crystal based all-optical logic decoder: linear and nonlinear perspectives [LINK TO WEBSITE]

Design and Analysis of All-Optical Isolator Based on Linear Photonic Crystal [LINK TO WEBSITE]

SKILLS

Programming Languages: **Proficient:** C, Python **Familiar:** C++, Rust, Bash

Technologies / Tools: Claude, Cursor, Antigravity, OpenClaw **Proficient:** Git, Make, GCC, Linux

Competencies: Distributed System, Linux Kernel, Perf, Embedded, eBPF, AI-assisted Development.