# ANIRUDH SUDHIR

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## EDUCATION

**Bachelor of Technology, Computer Science**                                                    2023 - 2027

PES University - CGPA: 9.59                                                                                *Bangalore, India*

Awarded the MRD scholarship thrice for academic excellence.

## SKILLS

| | |
|---|---|
| **Languages** | Rust, Go, C, SQL, HTML, CSS, JavaScript |
| **Technologies** | Docker, eBPF, Git, Github, SQLite |

## EXPERIENCE

**Bytebeam**                                                                               February 2025 - Present

Systems Engineering Intern

- Working on the re-architecture of rumqttc, an MQTT client in Rust, for improved performance and memory usage.

**PES Innovation Lab**                                                                                      July 2024

Project - HyperDistillation

- Collaborated in a team of two to develop HyperDistillation, a Golang tool to trace network traffic between containers and hosts outside of a Kubernetes cluster, using Inspektor Gadget, a series of eBPF-based programs, along with filtering and graph generation.

**ACM Industrial Experience Program**                                                     Mar 2024 - Apr 2024

Student Developer

- Worked in a team of four to build anna, a static site generator written in Go as part of AIEP, an annual mentorship program, where the development pipeline used in the industry is emulated for a variety of projects.
- Collaborated on various features such as live reload, collections and tags and worked on TDD-backed rebuild of the project to improve performance and maintainability.

**Technical Mentor**                                                                          Oct 2023 - Present

HSP - Hackerspace PESU ECC

- Co-hosted a workshop on eBPF, where participants understood the need to program the kernel and wrote simple applications to trace syscalls and network packets respectively.
- Delivered talks on the projects Qapture and anna at the HSP Mentor Expo and Fireside Talks respectively.

## PROJECTS

**Hobbes:** A Bitcask-like log-structured key-value store with an in-memory index, written in Rust. Delivered a talk on this project at the October 2024 Rust Bangalore Meetup.

**MIT Distributed Systems Labs:** A series of labs accompanying the graduate coursework on distributed systems, including a Raft implementation.

**Anna:** Anna is a highly performant static site generator written in Go, capable of beating Eleventy and Hugo on certain benchmarks. It includes features such as parallel rendering, live reload and collections.

**Spidey:** A concurrent web crawler written in Go with a consistent crawl rate of over 10,000 links per minute. During a run, Spidey discovered 16,000 links in a minute.

**Qapture:** Qapture is a C-based command line tool to recover deleted JPEGs from a forensic RAW image.