

# Hridesh MG

Kollam, Kerala | [GitHub](#) | [LinkedIn](#) | [Blog](#) | [Email](#)

## EDUCATION

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### Amrita Vishwa Vidyapeetham

Aug. 2023 – Aug. 2027

B.Tech in Computer Science Engineering; CGPA: 9.47/10

## SKILLS

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**Open Source Contributions:** Linux Kernel (Upstream), Django, CCEXtractor (GSoC) etc

**Languages:** Python, C, Rust, SQL, Javascript

**Backend & APIs:** FastAPI, Redis, Django, WebSockets, PostgreSQL

**Infrastructure:** Azure, GCP, Docker, GitHub Actions, Cloudflare, Celery, Nginx, Self-Hosting

## EXPERIENCE

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### Google Summer of Code Contributor

May 2025 – Sep. 2025

Organization: [CCEXtractor](#)

- **Cloud Optimization:** Revived and optimized CCEXtractor's cloud-based testing platform by fixing bugs, implementing file caching, and implementing dynamic VM distribution on Google Cloud Platform; reduced cloud costs by 20% and accelerated test run-times by ~50%.
- **Tool Improvements:** Prepared CCEXtractor tool for its v1.00 release by fixing more than 20 regressions and syncing the Flutter GUI with the latest C builds.

### LFX Mentee

Sep. 2024 – Dec. 2024

Project: [Linux Kernel](#)

- **Kernel Patches:** Upstreamed 11+ Linux Kernel [patches](#) for improving audio and ACPI hardware support.
- **Reverse Engineering:** [Reverse-engineered](#) a proprietary Windows ACPI application to enable full access to previously unsupported performance modes on Linux for Acer laptops.
- **Driver Fixes:** Fixed microphone input issues on Acer Nitro laptops by patching the ALC287 codec driver.
- **Invited Talk:** Was Invited to present my work at the Linux Foundation's Open Source Summit in India.

## PROJECTS

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### [Alex](#) – Scalable AI Interview Platform

- **High-Performance Architecture:** Engineered a stateless backend using FastAPI, Redis and decoupled Langchain workers to handle concurrent real-time audio sessions and LLM scoring under load.
- **Low-Latency Inference:** Integrated WebSockets and LiveKit to orchestrate a seamless ASR/TTS audio loop, minimizing latency.
- **Scalability:** Implemented Redlock-style distributed locking in Python to ensure session state consistency across horizontally scaled worker replicas.

### [BunkMate](#) – Attendance Platform

- **Scalable Backend:** Engineered a Django, Celery, and Redis-based backend achieving 99.9% uptime to support 10k+ [Playstore](#) downloads and a production web platform at [bunkmate.in](#).

## ACHIEVEMENTS

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**Speaker, IndiaFOSS:** Delivered a [talk](#) at IndiaFOSS, the largest open-source conference in India attended by over 2000+ developers, sharing my journey in contributing to the Linux Kernel.

**Invitee, YC Startup School:** One of 2,000 builders selected from 25,000+ applicants for Y Combinator's first physical event in India. Received 25k USD in funding for product development.

**Winner, Zenith:** [Won](#) 1st prize for building an [AI Interview Platform](#) at the Zenith national level Hackathon.

**Winner, EvoLUMIN:** [Won](#) 1st prize for an [urban planning tool](#) at the EvoLUMIN national-level hackathon.

## LEADERSHIP

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### [amFOSS](#) (Amrita Free and Open Source Software Club)

Oct. 2023 – Present

Committee Member

- **Event Management:** Organized hackathons, workshops, and conferences impacting over 500 participants.
- **Leadership:** Directed the strategy and initiatives for one of India's largest student-run open-source clubs.
- **Mentorship:** Mentored 20+ juniors in open-source workflows, code reviews, and contribution practices.