Nathan Paul

polarhive.net/contact | polarhive | npolarhive | w 0x78DBFBE8B325A5A9

EXPERIENCE

Research Intern @ PES Innovation Lab (formerly Microsoft Innovation Lab)

June '25 – Jul '25

- Project Intern, team MiCozServices
- Investigated tuning techniques to profile Microservices
- Work based on the Causal Profiling paper: Coz

Platform Engineering Intern @ Golain.io. Remote, Pune

Mar'25 - Apr'25

- Migration toward a **DAG**-based workflow engine to improve system scalability
- Assisted in refactoring components of the codebase to simplify rule-logic and modularity

Developer, ACM Industrial Experience Program

Feb '24 – Apr '24

- Part of the team that built **anna**, a static site generator written in Go.
- Achieved **284.5** ms render time for a 1000-file benchmark, outperforming Hugo and 11ty.
- Created a sitemap generator, set up RSS feeds, and an interactive tag-graph (D3.js).
- **DevOps:** Implemented CI/CD pipelines, a setup wizard, and theme bootstrapping.
- Presented at the 76th Go Bangalore meetup.

SKILLS

Languages: Go, Python, Bash, C, Nix, CSS, Redis, Postgres **Technologies:** Git, Docker, GNU/Linux, Vim, Observability

Writing, Communication: Blogging, LATEX, Free Software Documentation, RFCs

Interests

Free Software • Privacy • Protocols • GNU/Linux • Systems • IoT • Startups • Zero Knowledge Proofs

PROJECTS

- anna: Lightning-fast static site generator written in Go.
- py-typer: A speed typing test written in Python.
- pasta: Minimal pastebin service written in Go.
- jukebox: Queue LastFM music recommendations using mpd, yt-dlp, and Python.
- lava: Node daemon that periodically saves bookmarked articles to your Obsidian vault.
- wombat: Wikipedia crawler that visualizes relationships between articles.
- bullet: Collates similar articles from various RSS feeds using cosine similarity.
- drago: DAG-based workflow engine (PoC)

LINKS

- Proof of Work: A reverse chronological record of my work.
- Videos: YouTube channel focused on tech, privacy, and libre software.
- Photos: Photos that I have shot and edited.
- Ammachis Kathas: Malayalam short stories (an audiobook).
- arceo: Blocklist against social media, news & consumerism.
- wiki: My digital garden, a linkstash with web clippings.

EDUCATION

B.Tech in Computer Science & Engineering at PES University

2023 - 2027

ISFCR Dean's Award: Ranked 6th out of 250 participants in a jeopardy-style CTF.

Mentor Lead @HSP PESU

June '25 – Present

- Leading the mentor team and coordinating club-wide initiatives
- In charge of Tilde 4.0, HSP's flagship summer-mentorship program
- Overseeing technical contributions and workshops for the '26 term

Technical Mentor @HSP PESU

Oct '23 – May '25

- Maintainer of the club website, powered by anna
- Mentored contributors to psh, a POSIX-like shell
- Presented jukebox and anna at HSP Mentor Expo and Fireside Talks

Member @ACM PESU

Sept '23 - Present

- Maintainer Lead for Hacknight 6.0
- Mentored contributors to nimbus, a TUI client for Bluesky

Member @GDSC PESU

Aug '23 – Sept '24

- Hosted FOSS 101, an introductory workshop on open source
- Designer for Override, a Google Solutions Challenge hackathon

