

Akshat Patil

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EDUCATION

Medhavi Skills University

B.Tech in Computer Science & Engineering (AI/ML)

Sep 2025 – Jun 2029

Bengaluru, KA

EXPERIENCE

Processing Foundation • WebGL & WebGPU

2025 - Present

- p5.js Steward on the core team and WebGPU graphics steward, reviewing contributions and guiding project direction alongside maintainers
- Engineered an instancing API (instances(n).sphere()) for the p5.strands WebGPU renderer, reviewed and merged by core maintainers Dave Pagurek and Kit Kuksenok
- Redesigned GPU compute dispatch to auto-spread large 1D workloads across 2D dimensions, enabling 1M+ particle simulations
- 32 merged PRs across p5.js core, web editor and website, including GPU-to-CPU transfer via storage buffers and WebGL visual regression test infrastructure

CNCF - KubeStellar • Distributed Systems & Automation

2026

- Reached 3rd highest contributor (170,000+ pts) by systematically auditing the console and filing 500+ verified bug reports covering i18n gaps, silent failures and broken state handling
- Resolved a race condition causing data loss across server restarts by migrating in-memory state to persistent Kubernetes ConfigMaps
- Shipped 12 merged PRs delivering monitoring presets for Harbor Registry, Knative, Fluid, in-toto and Notary

LFDT - Hiero SDK • Automation & Tooling

2026

- Delivered 15 merged PRs to hiero-sdk-cpp, including a network update thread deadlock resolved by releasing the mutex before the call, and recovery ID calculation for Ethereum transaction signing
- Built hiero-automate, a config-driven PR automation pipeline with merge-conflict detection and ESLint integration

PROJECTS

Split-it-Wise • Next.js • Firebase • Real-time

GitHub

Group expense splitter used daily by hostel residents

- Build and deployed a group expense splitter that was organically adopted by roommates and floor residents for daily, real-money cost tracking
- Architected real-time balance settlement with Firebase listeners to handle concurrent updates from multiple users.

File-Lens • Flask • Python • REST Routes

GitHub

Local storage analyzer, runs fully offline

- Developed a fully offline local storage analyzer with zero external dependencies
- Implemented recursive directory scanning to visualize file size distribution, file category breakdown, and modification history.

ACHIEVEMENTS

- **Processing Foundation OSS Micrograntee '26:** Awarded a paid grant to implement WebGPU instancing API for p5.strands, nominated directly by project lead Kit Kuksenok after GSoC proposal stood out among roughly 120 applicants.
- **CNCF KubeStellar - Admiral Badge:** Awarded for high-volume, high-impact contribution to the KubeStellar project

TECHNICAL SKILLS

Languages: JavaScript, Python

AI/ML & LLMs: LLM API Integration, Prompt Engineering, NumPy, Pandas, Model Training Fundamentals

Frameworks/Libraries: React, Node.js, Express.js, p5.js

Systems & Automation: Kubernetes, Docker, Linux, Git

Databases & API: Firebase, MongoDB, MySQL, REST APIs

Graphics/GPU: WebGL, WebGPU, GLSL/WGSL