Anant Kumar

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Summary

CS undergraduate at BITS Pilani (CGPA 8.9/10) with **35+ merged PRs** across CNCF and cloud-native ecosystems: 13 in `kubernetes/kubernetes` (SIG Node, SIG Scheduling, SIG Auth), 9 in Kubeflow, 3 in Argo CD, and 5 in CNCF `kro` (author of KREP-10). Experienced in distributed systems, controller-runtime reconciliation logic, and production Go/Rust backend services.

Skills

Languages: Go, Rust, TypeScript, JavaScript, Python, SQL, Bash
Cloud Native & Distributed Systems: Kubernetes controller-runtime, client-go, CRDs, kubebuilder, informers/reconciliation, Argo CD, Kubeflow, WebSockets, Redis pub/sub
Backend & APIs: Node.js, Express.js, Axum, REST API design, gRPC, PostgreSQL, MongoDB
Applied AI & MLOps: Kubeflow Hub/MCP servers, LLM API integration, automated diff/code analysis pipelines
DevOps & Tooling: Docker, Kubernetes, Argo CD, Helm, GitHub Actions, CI/CD, Linux, Git

Open Source & Production Contributions

kubernetes/kubernetes SIG Node, SIG Network, SIG Auth, SIG Architecture
13 merged PRs *Sep – Oct 2026*

- Implemented Kubelet self-signed serving certificate algorithm selection (PR #142434), configurable key algorithms in client-go cert-util (PR #142350), and client-go reflector/informer data race fix (PR #140410).
- Enforced networking API schema validation via kube-api-linter (PR #141944); resolved apiserver ServiceAccount storage deduplication (PR #141892), declarative PodSpec validation (PR #141157), and 64-bit exponent quantity decoding (PR #142395).

argoproj/argo-cd | **kubeflow** CNCF GitOps & MLOps Projects
12 merged PRs (3 Argo CD, 9 Kubeflow) *Oct 2026*

- **Argo CD**: Unauthenticated gRPC health check endpoint (PR #30474), Crossplane ManagedResourceDefinitions health evaluation fix (PR #30404), and deterministic cmpserver plugin timeout assertions (PR #30378).
- **Kubeflow**: Hub async upload OCI layer isolation preventing base image pollution (PR #3411), robust non-CalledProcessError handling (PR #3413), base64url JWT decoding (PR #3400), and MCP server trainer event ordering (PR #439).

kubernetes-sigs/kro Kube Resource Orchestrator – CNCF SIG
5 merged PRs *Dec 2025 – Mar 2026*

- Designed and implemented **KREP-10** end-to-end: cluster-scoped instance CRD support for ResourceGraphDefinition with scope field validation, dynamic CRD synthesis, and namespace controller reconciliation (PR #1152, PR #1030), plus fail-fast validation (PR #980).

railgrid/railgrid | **kube-rs** AI Infra Startup | Rust Kubernetes Runtime
5 merged PRs *Sep – Oct 2026*

- **railgrid**: Cold-reached team; audited codebase, removed dead legacy `kro` broker stub (PR #747), and implemented provider integration e2e test suite (PR #761).
- **kube-rs**: Added `no_spec` derive attribute for spec-less CRDs (PR #2071) and unified stream controller trigger runtime bounds (PR #2076).

Projects

CodeUsagi – AI-Powered Code Review Tool | GitHub *TypeScript, Next.js, LLM APIs, GitHub Actions*

- Built an automated PR-review pipeline that parses diffs and posts context-aware inline suggestions via an LLM API, wired into GitHub Actions CI/CD; slashed PR review turnaround by ∼70%.

Exness – Multi-Asset Trading Platform | GitHub *TypeScript, Next.js, Node.js, WebSockets, PostgreSQL, Redis*

- Architected full-stack trading platform supporting 10+ asset classes with real-time WebSocket feeds, sub-200ms order execution latency across 500+ daily txs, and MT5 terminal feature parity.

rustCanvas – Real-Time Collaborative Whiteboard | GitHub *Rust, Yew/WASM, Axum, Tokio, WebSockets*

- Full-stack Excalidraw-compatible whiteboard: Yew/WASM frontend, Axum/Tokio backend broadcasting live edits over WebSocket rooms, optional PostgreSQL persistence with Redis pub/sub, plus Tauri desktop build.

Education

BITS Pilani – B.Sc. in Computer Science *(CGPA: 8.9/10)* *Pilani, India*
IIT Guwahati – Post Graduate Programme in Cyber Security *Guwahati, India*

Achievements

2nd Place (out of 200+ teams): 100x School & Superteam India Solana Hackathon – shipped working product in 48 hours.
Top 5 (out of 80+ participants): CTF Competition, IIT Guwahati Cyber Security Programme – cryptography, network security, and binary exploitation challenges.