

# Forensic Blueprint Strategy

This is a copy of a conversation between ChatGPT & Anonymous.

Understood. I'll **refine, not destroy** what you already built.

Below is a **clean, realistic 6-month DevOps + OSS mastery roadmap**, synthesized from:

- your **war-style roadmap**
- my earlier mastery roadmap
- **GSoC timing reality**
- the hard constraint: **only 6 months**, then DSA/placements

I will:

- keep the **same format & tone**
- remove only **redundant / risky overreach**
- preserve **elite depth**
- add **clear phase exits** so you don't spiral

Today = **6 Jan 2026**


End of DevOps mastery window = **30 June 2026**

## THE 6-MONTH SYSTEMS MASTERY ROADMAP

**Objective:** Become a *credible systems engineer + OSS contributor* in 6 months.

Not "learn DevOps". **Own systems.**

## PHASE 0 — INTEGRITY & VISIBILITY SPRINT

 **Jan 6 → Jan 21, 2026 (2 weeks)**

**Theme:** *If you can't see it, you don't own it.*

### Objective

Turn your existing work into **observable, explainable infrastructure**.

This phase is about **closing loops**, not adding features.

### Week 1-2: The Visibility Offensive

**Core Deliverable:** K8s-Sentinel V1 (Stable, Visible)

You already started this — now you **finish it properly**.

#### Mandatory Work

##### 1. Prometheus Instrumentation

- Gauges: active workers
- Counters: scans executed
- Alerts: open port detected

## 2. Grafana “Visual Truth”

- One dashboard that answers:
  - Is it running?
  - Is it overloaded?
  - Is it finding real issues?

## 3. Alerting

- Slack/Discord webhook
- Fire only on *meaningful* signal (no noise)

**NO new features allowed. Only visibility + correctness.**

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## Exit Test (non-negotiable)

You must be able to:

- Explain every metric
- Trigger an alert intentionally
- Record a **5–7 min demo video** (private is fine)

✖ *If you can't explain it calmly, the phase is not done.*

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# PHASE 1 — SCALING & DISTRIBUTED BEHAVIOR

 **Jan 22 → Feb 15, 2026 (3.5 weeks)**

**Theme:** From “works” → “survives load”.

## Objective

Move from Go toy → **distributed system thinking**.

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## ● Core Upgrade: Redis Streams

Replace in-memory coordination with **real backpressure**.

### Mandatory

- Redis Streams producer/consumer
- Explicit ACKs
- Failure recovery (crash consumer, resume)
- Metrics around queue depth & lag

## ● Production Discipline


- Multi-stage Dockerfile
- Distroless image (<20MB)
- Kubernetes CronJob or Deployment (Kind/Minikube)

## Exit Test

- Simulate **10k jobs**
- Kill a worker mid-run → system recovers
- Metrics prove recovery

📌 *This is where you stop being a "DevOps learner".*

## 🧠 PHASE 2 — OSS & GSoC OFFENSIVE

 Feb 16 → Mar 31, 2026 (6 weeks)

Theme: *Authority is earned in boring places.*

## Objective

Become a **recognized contributor** (not a random PR spammer).

## 🎯 Locked Targets

- Prometheus
- KubeArmor

No Argo, no hopping.

## Contribution Chain

### Weeks 1-2

- Docs fixes
- Tests
- Small refactors

### Weeks 3-6

- Bug fixes
- Non-trivial tests
- Small feature support

## Parallel Project: ARGUS V2 (FinOps Reaper)

This stays **secondary**, not a distraction.

### Scope

- Terraform AWS playground
- Detect idle / wasteful resources
- Dry-run mode only (safety)
- Vault for credentials

🚩 *This project supports credibility, not ego.*

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### Exit Test

- **3-5 merged PRs total**
- At least one maintainer interaction that isn't "LGTM"

🚩 *Only now are you GSoC-eligible.*

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## 👑 PHASE 3 — GSoC APPLICATION + SYSTEM CONSOLIDATION

 **Apr 1 → Apr 30, 2026 (4 weeks)**

**Theme:** *Explain before you extend.*

### Objective

Convert work → **proposal**, not scramble.

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### Mandatory Outputs

- One GSoC proposal grounded in:
    - your PRs
    - real repo issues
    - realistic scope
  - Internal architecture doc for:
    - K8s-Sentinel
    - Argus
- 

### Exit Test

- Proposal reviewed by **someone external**
- You can defend:

- why the project matters
- why you're qualified
- what won't be done

✂ Even if GSoC fails, this phase is not wasted.

## PHASE 4 — KERNEL & SECURITY DIFFERENTIATION

 May 1 → June 15, 2026 (6 weeks)

Theme: See below the application.

### Objective

Create **unfair differentiation** before placements.

### Project: GHOST-PROBE (Scoped, Not Massive)

⚠ This is **not full god-mode**, it's a **taste of depth**.

#### Mandatory

- Simple eBPF probe (sys\_connect or TCP)
- Loaded via Go
- Logs minimal data
- Deployed via Ansible (2–3 nodes)

### Security Audit

- RBAC everywhere
- No plaintext secrets
- Explicit privilege boundaries

### Exit Test

- Explain syscall-level visibility to a junior
- Show something **Prometheus can't see**
- Repo with clear README + limits documented

## PHASE 5 — FREEZE & TRANSITION

 June 16 → June 30, 2026 (2 weeks)

Theme: Do not overstay.

## Objective

Lock gains. Prepare to pivot to **DSA + placements**.

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## Mandatory

- Freeze all major projects
- Clean READMEs
- Pin your best 3 repos
- Write a **1-page systems philosophy doc**

🚧 You exit DevOps mastery with assets, not anxiety.

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## 👑 WHAT YOU WILL HAVE AFTER 6 MONTHS

- 2 serious OSS affiliations
  - 3 deep projects
  - Prometheus + K8s + Go authority
  - Enough credibility to:
    - apply GSoC
    - stand out in infra roles
    - justify advanced thinking content
  - A clean pivot point to DSA
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## FINAL RULE (DO NOT BREAK)

**Six months of depth beats three years of dabbling.**

This roadmap is **now final**.

No more merges. No more PDFs.

If you want next, I can:

- Convert this into a **weekly checklist**
- Help you **cut anything risky**
- Or define **what “done” looks like for each repo**

Just say which.

retype it just , dont change or edit anything

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The Architect is back. No more high-level briefings. You want the **\*\*Forensic Blueprint\*\***—the 100cr

strategy that closes the book on DevOps and Systems by the end of Semester 4, leaving you free to dominate DSA and placements in Semester 5.

Since it is **January 6, 2026**, you have exactly **15 days** left in the Noida High-Compression Zone. 🌑 🚀 🌕

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### 🛡️ PHASE 0: THE INTEGRITY & VISIBILITY SPRINT (NOW - JAN 21)

**Current Location**: Noida, India.

**Objective**: Build the "Integrity Shield" and launch **K8s-Sentinel V1.0**.

#### 🟢 Week 2: The Visibility Offensive (Jan 6 - Jan 12)

**Goal**: Move from "running code" to **"authoring infrastructure."** If you can't see the results, you don't own the machine.

\* **The Grafana "Visual Truth"**:

\* **PromQL Mastery**: Map `k8s_active_workers` (Gauge), `k8s_port_scans_total` (Counter), and `k8s_open_ports_total` (Alert Stat).

\* **Alerting**: Set up **Discord/Slack webhooks** to trigger a "RED ALERT" when a port is detected.

\* **The YouTube Launch (Jan 12)**:

\*

**Video Topic**: "How I Built a Concurrent K8s Sentinel with Go & Prometheus".

\*

**Content**: Show the **Go Worker Pool** (Concurrency) and the **Grafana Dashboards** (Observability).

\* **To-Do List**:

1. Finalize the `/metrics` endpoint in your Go code.
2. Write the dashboard JSON for persistence.
3. Record the screen-capture of a **100-worker scan** hitting a local cluster.

#### 🟢 Week 3: The Scaling Foundation (Jan 13 - Jan 21)

**Goal**: Transition to **Aditya-level** distributed architectures.

\* **Redis Streams**: Replace Go channels with **Redis Streams** for job queuing. This allows the

scanner to handle 10,000+ pods without crashing the Go binary.

\*  
**\*\*Multi-Stage Dockerfile\*\***: Write a production Dockerfile using a **distroless** base to keep the image size under 20MB.

\* **\*\*To-Do List\*\***:  
 1. Implement the **\*\*Redis Producer/Consumer\*\*** pattern in Go.  
 2. Deploy the scanner as a **\*\*Kubernetes CronJob\*\*** in a local **\*\*Kind/Minikube\*\*** cluster.

3. Push the final "Noida Version" to GitHub with a pristine, rebased history.

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### ### 🏠 PHASE 1: THE OPEN SOURCE & GSoC OFFENSIVE (FEB - MARCH)

**\*\*Objective\*\***: Establish "Industrial Authority" via the **\*\*100+ Commit Protocol\*\***.

\* **\*\*The Contribution Chain\*\***:

\*

**\*\*Targets\*\***: Join Slack for **\*\*ArgoCD, Cilium, or Prometheus\*\***.

\*  
**\*\*Weeks 1-3\*\***: Submit documentation fixes and unit tests to get into the "Contributor" channels.

\*  
**\*\*Weeks 4-7\*\***: Tackle "Good First Issues" in **\*\*client-go\*\*** or **\*\*Cobra CLI\*\*** logic.

\* **\*\*Project 2: Argus V2 (The FinOps Reaper)\*\***:

\*

**\*\*The Mission\*\***: Solve the "450-Rupee Trauma" with **\*\*Agentic Automation\*\***.

\*  
**\*\*The Build\*\***: Use **\*\*Terraform\*\*** to build a VPC "Labyrinth" and write a Go service (The Reaper) that kills idle NAT Gateways.

\*



**\*\*Security\*\***: Integrate **\*\*HashiCorp Vault\*\*** to manage the AWS keys used by the Reaper.

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### ### 🦴 PHASE 2: THE GOD MODE — GHOST-PROBE (APRIL - MAY)

**\*\*Objective\*\***: Kernel-level mastery. Separate yourself from "Users" and become a "Master".

\* **\*\*Project 3: Ghost-Probe\*\***:

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**\*\*The Build\*\***: Write an **\*\*eBPF probe\*\*** in C (loaded via Go) to monitor `sys_connect` calls directly in the kernel.

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**\*\*Orchestration\*\***: Use **\*\*Ansible\*\*** to deploy this probe across a 3-node cluster.

\* **\*\*The Final Sem 4 Audit\*\***:

\* Perform a forensic review of every service.

\* Ensure **\*\*RBAC\*\*** (Role-Based Access Control) is implemented for every API.

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### ### 🏰 THE MASTER TOOL LIST (THE ARSENAL)

Category	Tool	The "Deadly" Purpose
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<b>**Language**</b>	<b>**Go (Golang)**</b>	Building CLI tools, K8s controllers, and high-performance backends.

	<b>**Observability**</b>	<b>**Prometheus + Grafana**</b>	Turning the "Invisible" into "Visual Truth" and alerting on cost spikes.
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	<b>**Infrastructure**</b>	<b>**K8s + Terraform**</b>	Building and managing the "Cloud Labyrinth".
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	<b>**Automation**</b>	<b>**Ansible**</b>	Orchestrating deployments of "The Reaper" and "Ghost-Probe".
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| **Security** | **HashiCorp Vault** | The "Sovereign Safe" for your 100cr credentials.
|
| **Kernel Power** | **eBPF (C/Go)** | Monitoring syscalls at Layer 4 with zero overhead.
|
| **Messaging** | **Redis Streams** | Queueing thousands of events without crashing the app.
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### ### 🚩 THE FINAL DIRECTIVE

**"The simulation doesn't care if you're tired; it only cares if you're competent"**.

1. **Tonight**: Stop coding new features. Fix the **Grafana Dashboard** so you can see the data tonight.

2. **The Noida Extraction**: You have **15 days** left. Use them to finish the Prometheus and Redis integrations before you lose the high-compression environment.

3.  
**Horizontal Reset**: 5 minutes on the floor with **Seafret** after every 4-hour build block.

**STARK SYSTEM: MASTER ROADMAP LOCKED. COMMENCE INDUSTRIAL CONSTRUCTION.** 🌐 🔧 🚀 🎉

**"Would you like me to generate the exact Dockerfile and Prometheus configuration for your "Visibility Offensive" tonight?"**---

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