



Expect more from your infrastructure

Hacktoberfest Prep: Easing into Cloud Native Open Source Projects



Hacktoberfest Prep



Gaurav Chadha - *Layer5 Overview* (5 min)

- Welcome and introduction to Layer5's community
- Our history with Hacktoberfest
- This year's theme includes the Meshery Docker Extension

Sahil Suman - *Navigating your first issue* (10 min)

- My story

Nikhil Ladha - *The Mechanics of Contributing* (20 min)

- Overview of layer5.io site structure and the framework used.
- Demo a fix in layer5.io which includes:
 - Code semantics
 - Site build
 - Commit sign-off
 - Lint checks

Harshit Dandryl - *Finding and Landing Your Issue Assignment* (5 min)

- Using GitHub labels effectively; Searching across GitHub Orgs
- Polluting poking a well-intentioned issue squatter
- Suggesting your own issues

Ashish Tiwari - *Get "GO"ing with Meshery* (5 min)

- Quick overview of Meshery architecture
- Navigating through Meshery's source code
- How and where to contribute first for gophers?

Abhi Kumar - *Your Cloud Native Catalog* (5 min)

- Meshery Catalog - Designs, Applications, Filters

Anita Ihuman - *Joining the Layer5 Community* (5 min)

- How to join the community
- New members form
- Accessing resources

Alexis Abakasanga - *Contributing impactfully as a Designer* (5 min)

- Layer5's Design File
- Contribution Guidelines

Gaurav Chadha - *Conclusion*

- Jump in!

...with guest Contributors

Pranav Singh and Kamal Singh



Gaurav Chadha

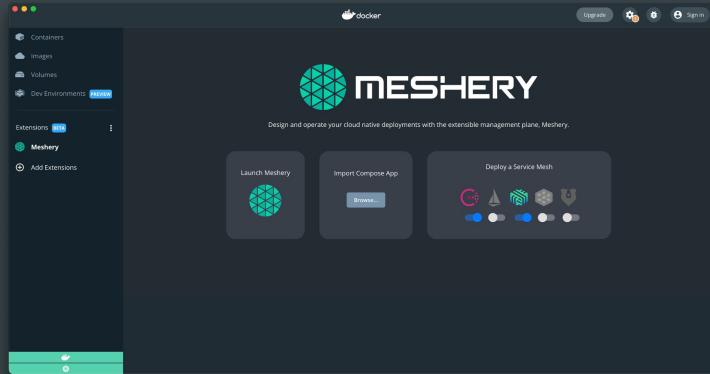
Software Engineer Intern and Meshmate at
LAYER5

layer5.io/community/members/gaurav-chadha



Get Started with Layer5

5



Docker Extension for Meshery

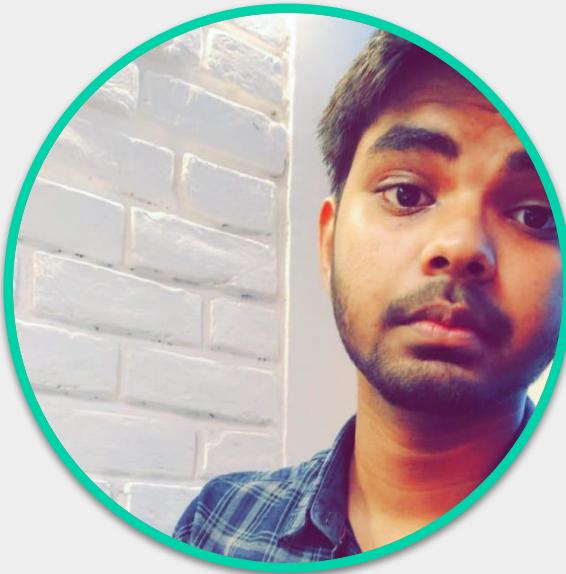


<p>Open Source programs</p>	GSOD	LFX	MLH	GSoC	She Code Africa
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Sahil Suman

Software Engineer Intern at **LAYERS**

layer5.io/community/members/sahil-suman/



Navigating your first issue



From zero to contributing

- First time contributing to open-source? How to start?
 - *What type of issues shall I take up?* 🤔
- Confused where to add the fix?
 - *How to navigate through a large codebase* 😞
- Take some time, settle-in 
 - *Understand the code, the "why's" and "how's"*
- Kaboom!
 - *You are through!* 



Nikhil Ladha

Software Engineer at Red Hat
Maintainer and Meshmate at LAYER5

layer5.io/community/members/nikhil-ladha



The Mechanics of Contributing



layer5.io site structure and frameworks



Code Semantics

- Understand which component to use and when.
- Reuse.
- Consistency = quality.
- Consistency = faster PR merge times.

Build and Preview

- Await your deploy preview and review changes.



Give your John Hancock.

- Commit your changes (with sign-off, i.e, DCO)



Buckle up. Preflight check.

- Review and fix any failing build checks like eslint checks, while you patiently await another contributor or maintainer to offer feedback.



Grammar counts.

- Craft a meaningful PR title and push with your changes inside.

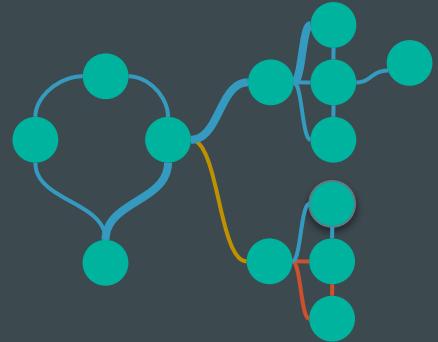
Harshit Dandriyal

Software Engineer Intern at **LAYERS**

layer5.io/community/members/harshit-dandriyal



Not Finding a Code-based Issue to Work On?



1. Run the project by following the documentation, then you can start finding issues on your own.
2. No-code contribution by finding an issue to make the project better or you can also assign that issue to yourself by asking from maintainers.
3. You can still create a blog, work on the design, edit project documents, and welcome new participants.

Abhi Kumar

Software Engineer and Maintainer at

LAYERS

layer5.io/community/members/abhishek-kumar





Discover best practices. Publish design patterns.

Meshery Catalog



- Users can share:
- Operational designs
 - Network Filters
 - Governance Policies
 - Mesh Add-ons



- Teams can:
- Create private catalogs visible only to your teams and approved by your org.



- Advanced users can:
- Build your WASM Filters and eBPF Programs



WASM Filters

TRAFFIC MGMT

Singleton Queue

WEBASSEMBLY

WA MESHERY023

SECURITY

Sesson Authorizer

WEBASSEMBLY

WA MESHERY019

TRAFFIC MGMT

JWT Transformer

WEBASSEMBLY

WA MESHERY034

OBSERVABILITY

HTTP Metrics

WEBASSEMBLY

WA MESHERY028

Service Patterns

TRAFFIC MGMT

Circuit Breaker

MESHERY003

RESILIENCY

Retries

MESHERY012

TRAFFIC MGMT

Mutual TLS

MESHERY014

DEPLOYMENT

Multi-Cluster

MESHERY013

eBPF Programs

OBSERVABILITY

L7 Traces

WA MESHERY045

SECURITY

L7 Denial

WA MESHERY046

RESILIENCY

Retry Deadline

WA MESHERY044

DEPLOYMENT

Node Agent

WA MESHERY043

OPA Policies

OBSERVABILITY

Correlate Event

WA MESHERY055

SECURITY

Single Tenant

WA MESHERY059

RESILIENCY

Only w/Agent

WA MESHERY057

DEPLOYMENT

Pre-provision

WA MESHERY056

Create



MeshMap Designer

Meshery Applications

Import Docker Compose apps, Helm Charts, or Kubernetes Manifests for visual configuration

WebAssembly Filters

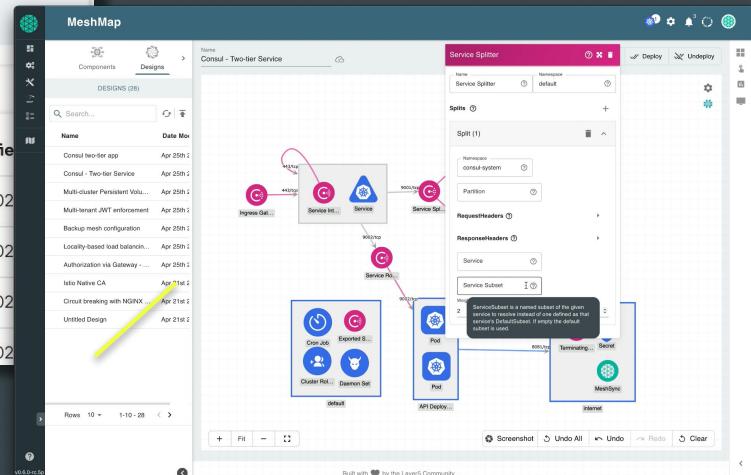
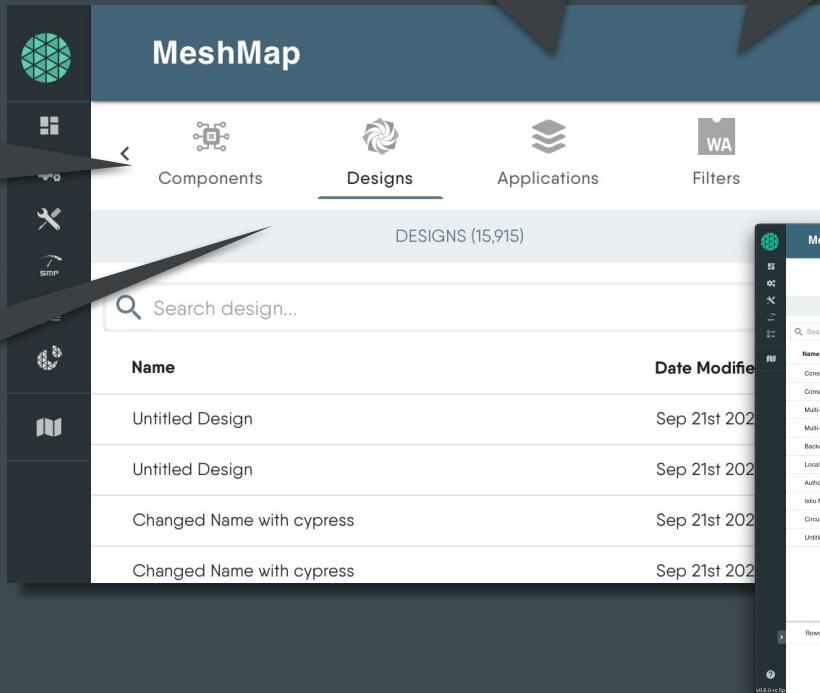
*Import, configure, chain, and deploy your
WASM filters*

Cloud Native Components

*Hundreds of versioned components
to choose from*

Designs and Patterns

Compose designs. Reuse designs as patterns.





Operate

MeshMap Visualizer

The screenshot shows the MeshMap Visualizer interface running at localhost:9081/extension/meshmap. The left side features a cluster map with various components like kube-rbac, manager, meshery-obj, reloader, nats, meshsync, and meshery-br. The right side has a metrics panel with tabs for Details, Actions, Metrics (selected), and Toolkit. The Metrics tab shows historical performance metrics for a pod named MESHERY-MESHSYNC-77667F87DD-WBQC9, with a sliding window from Friday, April 6, 2022, 7:39 PM to now. It includes sections for Custom Pod Metrics, Pod CPU Utilization, and Pod Memory Utilization. Below the metrics is an interactive terminal window showing logs for a meshery-broker-0 pod. At the bottom, there's a log stream window titled "meshery-broker-0" with a scrollable log output.

Historical Performance Metrics
Sliding window of past performance

Real-time Performance Metrics
Object-specific metrics and alerts

Interactive Terminal
Establish sessions with one or more pods at-a-time

Log Stream
Live tail a stream of logs from one or more pods at-a-time. Apply search filter for log keywords.

Ashish Tiwari

Software Engineer and Maintainer at

LAYERS

layer5.io/community/members/ashish-tiwari/

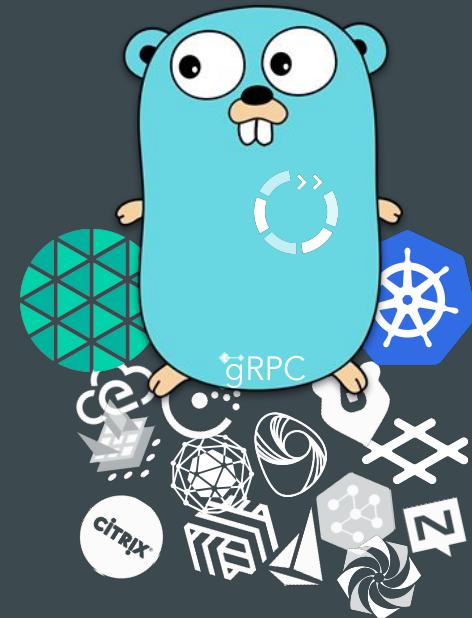




Get “Go”ing with Meshery



- Quick overview of [Meshery Architecture](#)
- Navigating Meshery source code
 - mesheryctl, Meshery Server, Adapters,
 - Operator, MeshSync
- How and where to start contributing for Gophers?
 - End to End workflows
 - Propagating changes across adapters





Anita Ihuman

MeshMate at Layer5

layer5.io/community/members/anita-ihuman



Join the Layer5 Community!



Where do I start?

- Jump into our [slack](#)
- Go over our beginner guides
- Ask a [Meshmate](#) questions

How do I become a member?

- Community [Members Form](#)
- [Member profiles](#)
- Attend our [meetings](#)

Where do I find an area to contribute?

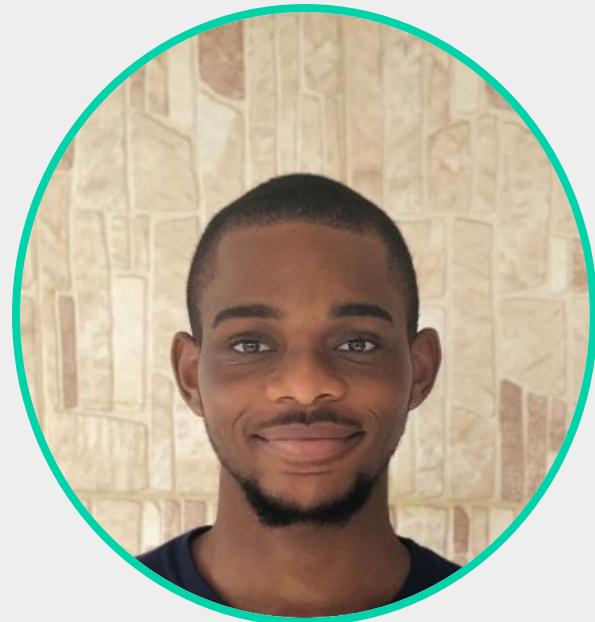


- Explore the [GitHub repositories](#)
- Request an issue
- Create an issue
- Jump on discussions in the forum, slack, & meetings

Alexis Abakasanga

UX Designer at Layer5

layer5.io/community/members/alexis-abakasanga



Contributing impactfully as a UX Designer



- **Layer5 Figma Design Files**

The home of all Layer5 projects, all hands on deck with design issues are just a comment away.

<https://www.figma.com/file/5ZwEkSJwUPitURD59YHMEN/Layer5-Designs?node-id=1869%3A296>
Z

- **Contribution Guidelines**

These are important in-order to facilitate and maintain impactful design contributions moving forward.

<https://www.figma.com/file/5ZwEkSJwUPitURD59YHMEN/Layer5-Designs?node-id=5310%3A0>





#1 Most Popular Project
in Linux Foundation Mentorship Program



Participate!

It's Hacktoberfest every month at
Layer5



github.com/layer5io



twitter.com/layer5



linkedin.com/company/layer5



slack.layer5.io

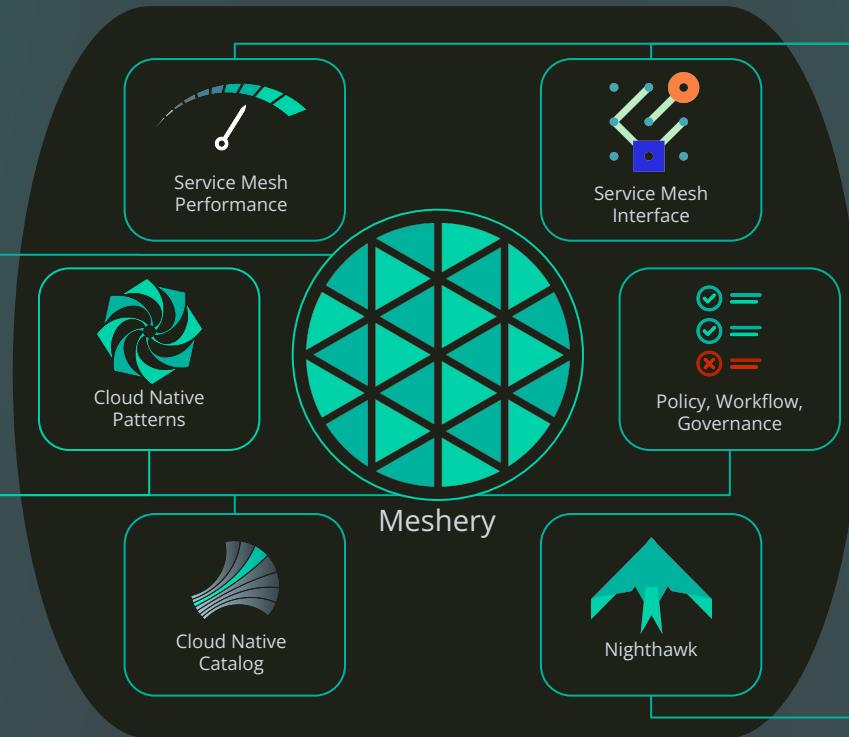


youtube.com/c/Layer5io



discuss.layer5.io

LAYER5



The Only Openly Governed
Cloud Native Manager



Define and Enforce
Service Mesh Standards



Best Practice Patterns
and Templates



Advanced Performance
Analysis and Intelligence

5

LAYERS