# Building Modern Applications using Open Source

*and running existing ones*

Arun Gupta, @arungupta

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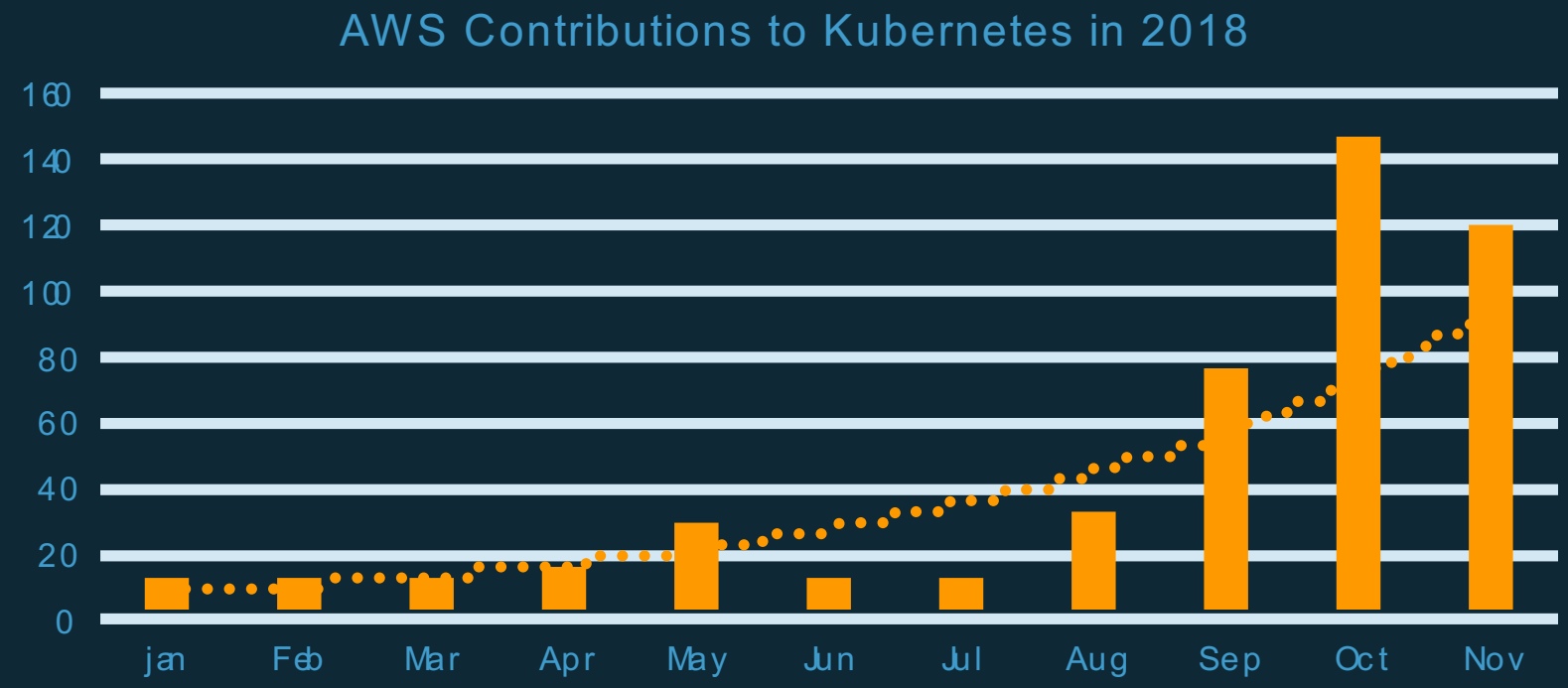


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aws

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kubernetes-sigs/aws-alb-ingress-controller

kubernetes-sigs/aws-ebs-csi-driver

kubernetes-sigs/cluster-api-provider-aws

kubernetes-sigs/aws-iam-authenticator

kubernetes-sigs/cluster-api

kubernetes-sigs/controller-runtime

kubernetes-sigs/aws-encryption-provider

}

Alpha in v1.13

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# In the Community …

## Current

- Etcd contribution to CNCF
- Eksctl (Weaveworks)
- Mu (Stelligent)
- AWS Operator
- Alpha features in 1.13
- SIG-AWS participation

## Planned

- Upstream testing
  - Conformance
  - Scalability
  - Windows worker nodes
  - ARM support
- We're hiring!

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Consistent communications management

Complete visibility

Failure isolation and protection

Fine-grained deployment controls

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# Observability using service mesh proxy

Reduce work required by developers

Follow best practices

Use any language or platform

Simplify visibility, troubleshooting, and deployments

Overall—migrate to microservices safer and faster

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Works across clusters, container service & VMs

Scale and stability

Partner integrations

Upstream compatibility

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firecracker-microvm.io

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# Accelerating Containers with Firecracker

## Security from the ground up

KVM-based virtualization

## Speed by design

<125ms to launch
150 microVMs per second/host

## Scale and efficiency

<5MB memory footprint per microVM

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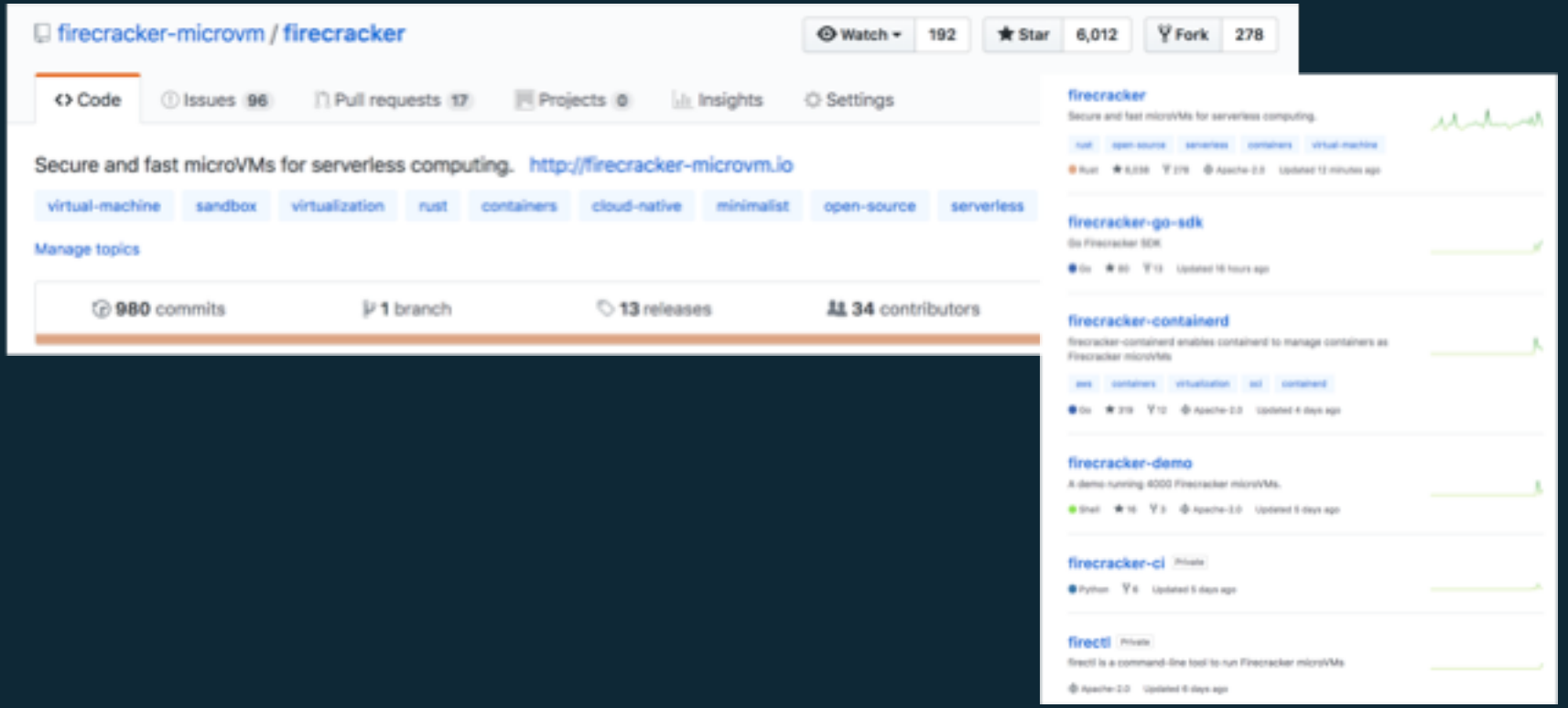


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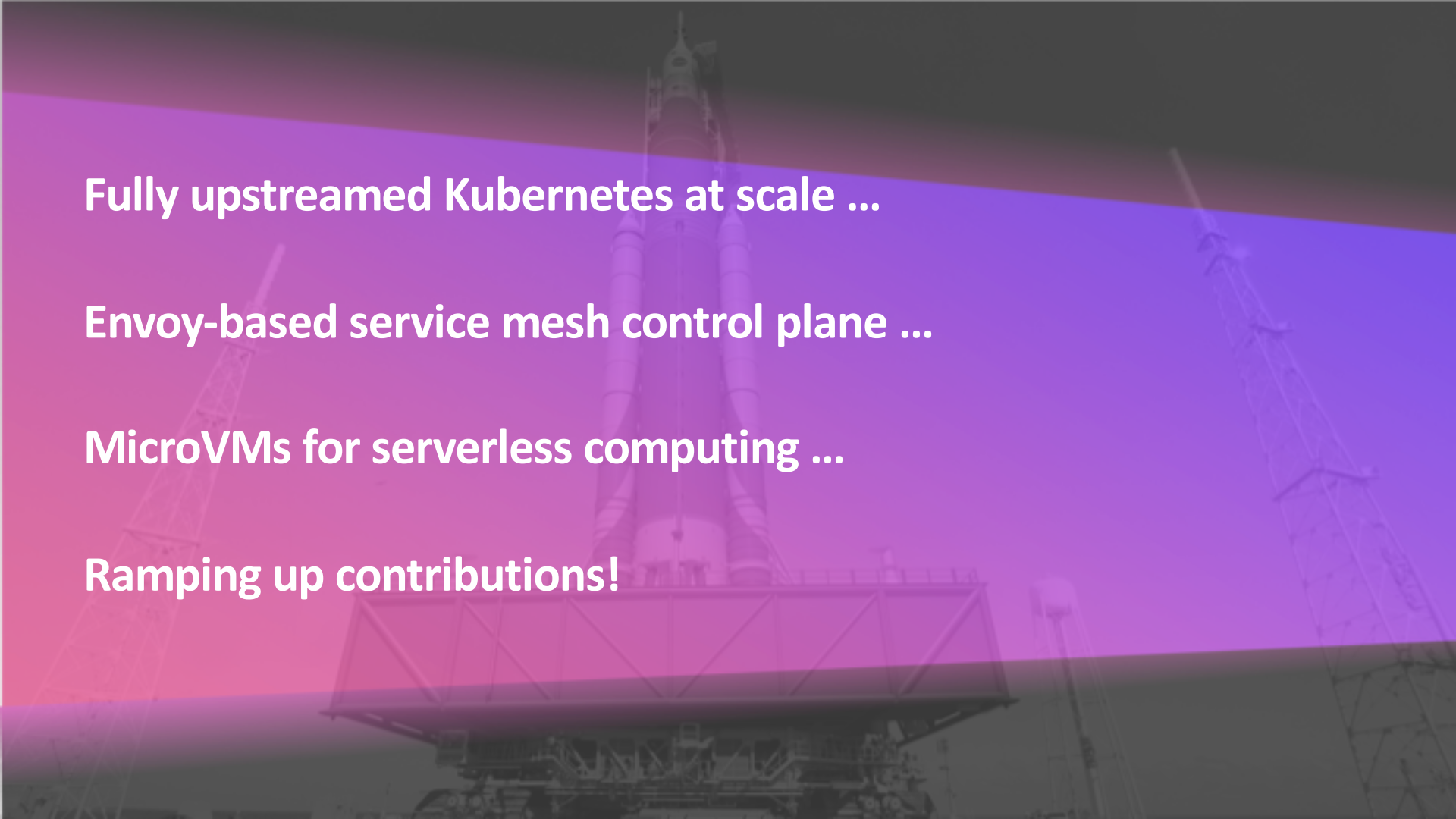
Fully upstreamed Kubernetes at scale …
Envoy-based service mesh control plane …
MicroVMs for serverless computing …
Ramping up contributions!