Top Devops tools/Services for 2023

This is based on the a youtube video from Victor Farsic, which I have a huge consideration for the ideas and knowledge of Devops. I do have a long IT road but not totally into Devops, which I focused most in the last years, so Victor is far ahead and thus I'm always listening to what he has to say. I may disagree sometimes but even when I do, I respect his opinion a lot.

We know that is impossible to keep up with the software industry, it's impossible to evaluate all the new tools coming in, and all the changes happening all the time. So Victor proposed a small olympics of tools and services that could help us to trace a path to 2023 in DevOps. If you know any tool or service that is not here but you think it should, don't worry, as I said nobody knows it all. Leave a comment on the video and let's see if can be evaluated later. I think he's main goal is to help giving suggestions, which again I considered so useful that I decided to write it down, so I can manage my learning better through the year.

First, the tools/services were divided into 10 categories, almost a decathlon!

- 1. Cloud Computing
- 2. Infrastructure And Service Management
- 3. App Management Manifests
- 4. App Management Kubernetes Operators
- 5. App Management Managed Services
- 6. Development Environments
- 7. Pipelines (CI/CD)
- 8. GitOps (CD)
- 9. Policy Management
- 10. Observability

Inside each category, most fo time, five contenders, based on his personal choice, and one winner; with a draw allowed sometimes. I'll put a link to the tool and a link to the video where Victor reviews the tool (if exists), as it was in the video description. The observations are mine based on his comments. So, were are the nominees and the winners:

- 1-Cloud Computing:
 - Linode
 - DigitalOcean
 - Vultr
 - Civo Video Review
 - Scaleaway Video Review

Winner: Civo.

Obs: I just liked that AGA(Amazon,Google,Azure) were left off and he focused more on budget friendly, specialized cloud providers. Scaleaway also had some highlights but as it had geo restrictions (just for EU), it didn't make it.

• 2-Infrastructure And Service Management:

- Terraform -Video Review
- Pulumi -Video Review
- Cluster API Video Review
- Crossplane Video Review
- Klotho Video Review

Winner: Crossplane

Obs: All contenders are quite good but Crossplane starts to emerge and creating a new category called control plane. Including according to Victor, this category will be replacing IaC in a near future. Good tip, thanks. I personally like Pulumi because of Python support but I'll check Crossplane for sure.

- 3-App Management Manifests:
 - Kustomize Video Review
 - Helm Video Review
 - Carvel ytt Video Review
 - Jsonnet Tanka Video Review
 - cdk8s Video Review

Winner: cdk8s

Obs: I must confess besides Helm, I was not caring too much for other tools, and again I like a lot the choice for the same reason of previous winner: code. One more place to use Python. PS: I'm not a great Python fan. But as for sometime now my main goal is to have things working, I inverted my priorities. First: Running, working. After: try to make it work with something else "superior" or "elegant".QDOS model!

- 4-App Management Kubernetes Operators:
 - KubeVela Video Review
 - Knative Video Review
 - Crossplane Video Review
 - Metacontroller -Video Review

Winners: it's a draw! Crossplane and Knative.

obs: Crossplane again. Must check this.

- 5-App Management Managed Services:
 - Fly Video Review
 - Google Cloud Run Video Review
 - Azure Container Apps- Video Review
 - AWS Lightsail -Video Review
 - AWS Lambda Containers Video Review

Winner: Google Cloud Run

Obs: That was difficult, all contenders were really good. I thought Victor had forgotten fly.io but he added here. For small size things, fly.io is great. But again, equals to google cloud run, it doesn't cover all the user cases.

- 6-Development Environments:
 - Gitpod Video Review
 - GitHub Codespaces -Video Review
 - Okteto Video Review
 - DevSpace Video Review
 - Tilt Video Review

Winner: Okteto

Obs: Also a difficult round. All five contenders are very good. So, don't be upset if you know don't know Okteto, but some of the others, you're in good hands too.

- 7-Pipelines (CI/CD):
 - Tekton Video Review
 - Argo Workflows & Events Video Review
 - Jenkins Video Review
 - GitHub Actions Video Review

Winner: GitHub actions

Obs: Not the most complete tool here, but let's say it's a KISS philosophy and if you think pipelines are commodities, simplicity helps.

- 8-GitOps (CD):
 - Flux Video Review
 - Argo CD Video Review
 - Rancher Fleet Video Review

Winner: Argo CD

Obs: Argo CD is probably the most widely adopted Gitops tool by vendors and individuals by now. Flux is almost at the same level and capable of deliver the same results but the wide adoption of Argo weight here.

- 9-Policy Management:
 - Open Policy Agent (OPA) Gatekeeper Video Review
 - Kyverno Video Review
 - Datree Video Review

Winner: kyverno

Obs: All three contenders were very good, OPA is around for sometime, Kyverno is Kubernetes native. Datree is very close to Kyverno, having the advantage of be both in server side and at client side (CLI); probably will surpass it soon. Good options here.

- 10-Observability:
 - OpenTelemetry (Instrumentation) Video Review
 - Metrics with VictoriaMetrics (metrics) No review yet
 - Loki (Logs) Video Review
 - Grafana tempo(Traces) No review yet
 - Grafana(Dashboards) Video Review
 - Robusta (Alerting) Video Review
 - Komodor (Troubleshooting) Video Review

Winner: In fact Observability was divided into sub-categories: -Instrumentation -Metrics -Logs -Traces -Dashboards -Alerting -Troubleshooting

and all tools listed would be a winner in each sub-category.

Obs: If you notice here, is more than time to look at Grafana. Grafana is everywhere not just in Devops, you'll benefit a lot from learn it.

So, that's it. A lot of things to study in 2023. Also remember to sign up for Victor Podcast DevOps Paradox, which I learned to like a lot.