



# Leveraging AI to Troubleshoot Kubernetes with K8sGPT

Cloud Native Meetup Linz  
May 30th, 2023

**Thomas Schuetz**  
K8sGPT Maintainer



@thschue 



<https://k8sgpt.ai>  
<https://github.com/k8sgpt-ai>

# My Motivation to Contribute :-)



# Agenda

**What could go wrong in Kubernetes? - Demonstration 1**

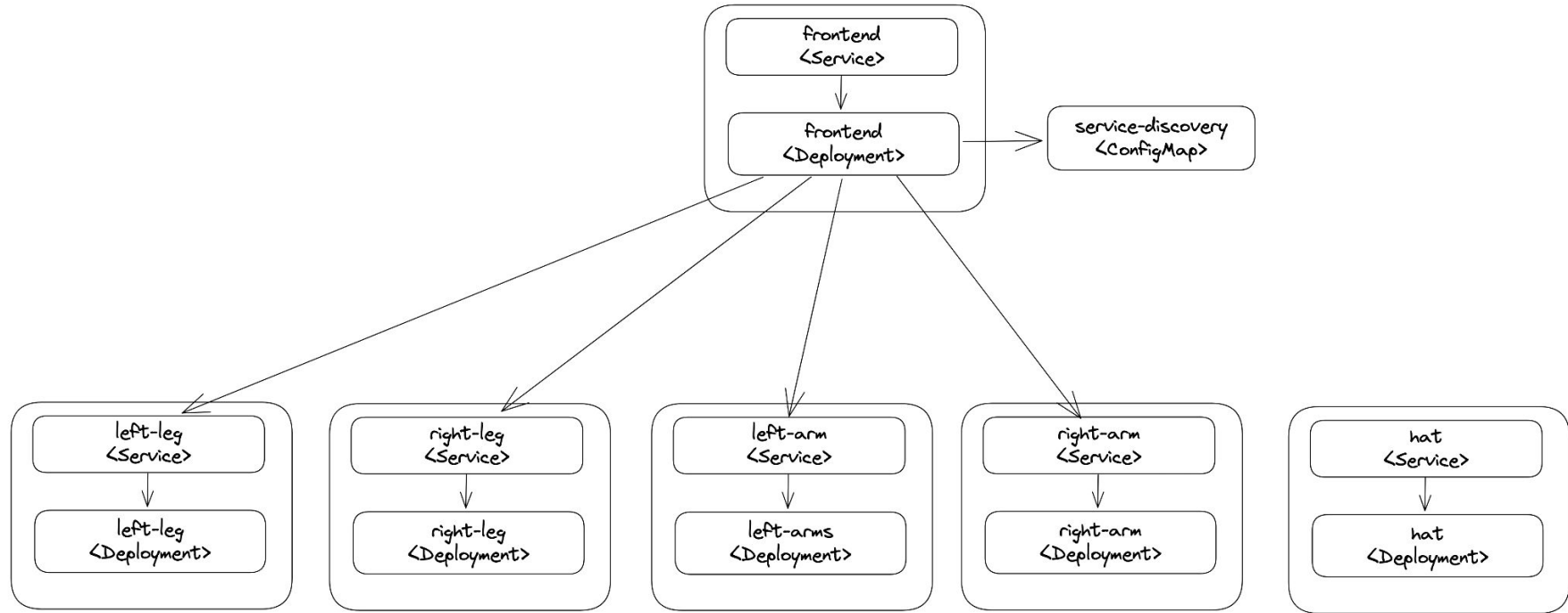
**Human Knowledge and AI - A perfect fit to fix Kubernetes Issues**

**Fixing Kubernetes Issues with K8sGPT - Demonstration 2**

**K8sGPT as your 24/7 SRE**



# Demo 1: Troubleshooting an Kubernetes Environment



# The Evolution of K8sGPT



# Why K8sGPT?

Troubleshooting  
K8s can be really  
hard

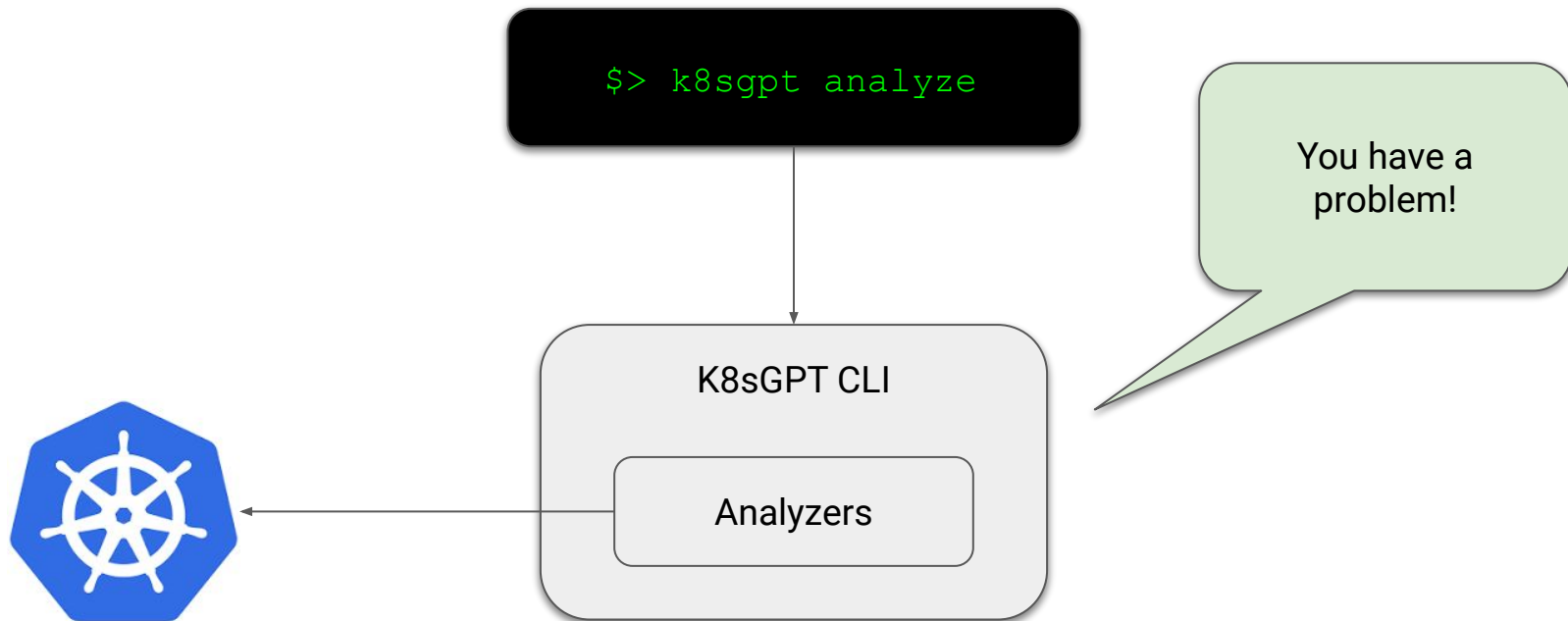
Same issues over  
and over

Humans have the  
problems and the  
ability to find them

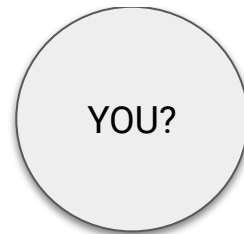
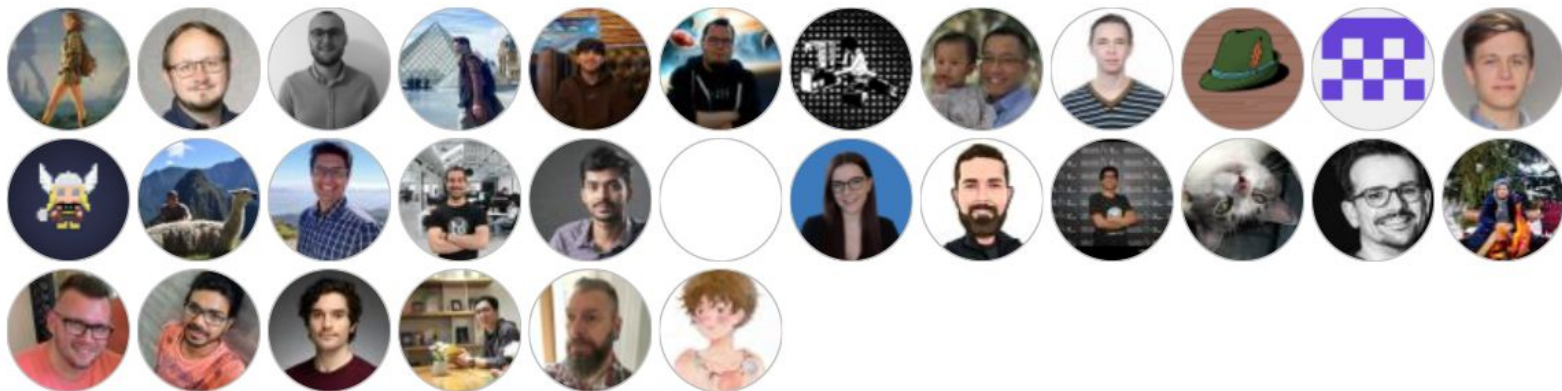
AI provides  
solutions for our  
problems



# K8sGPT Version 0.1.0 (End of March)

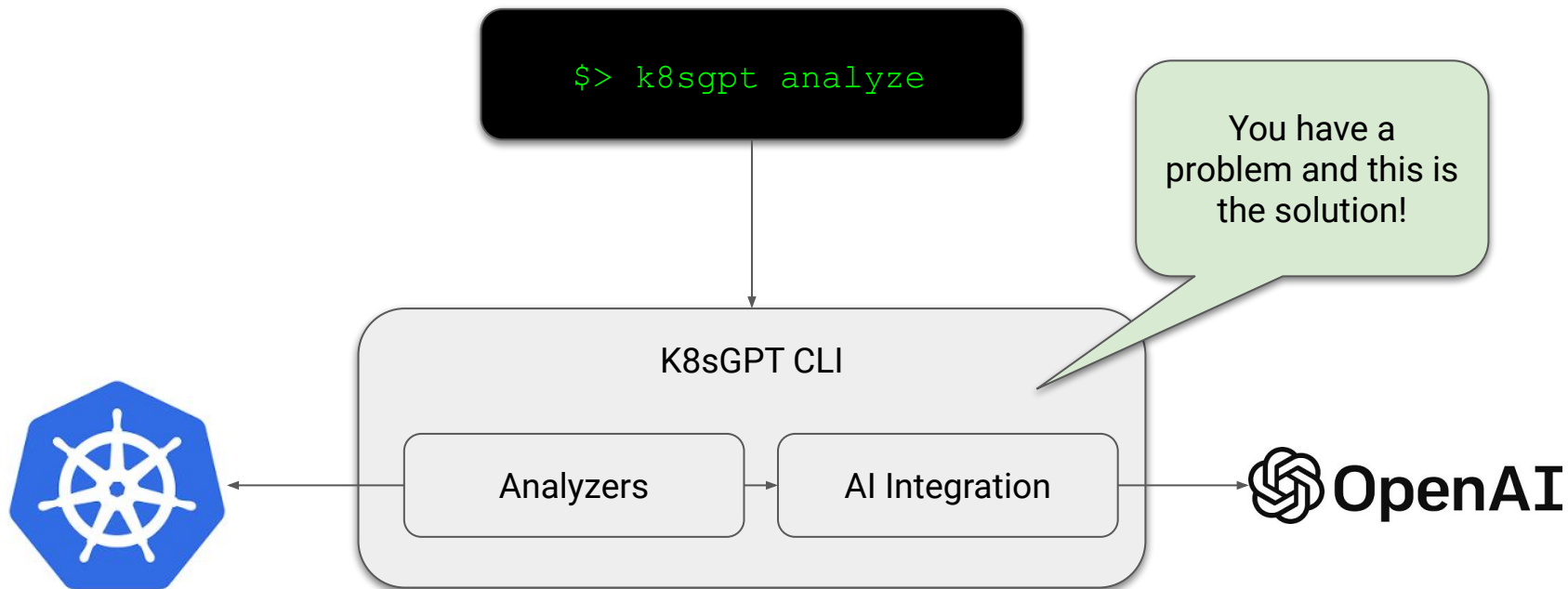


# The Human Knowledge behind K8sGPT

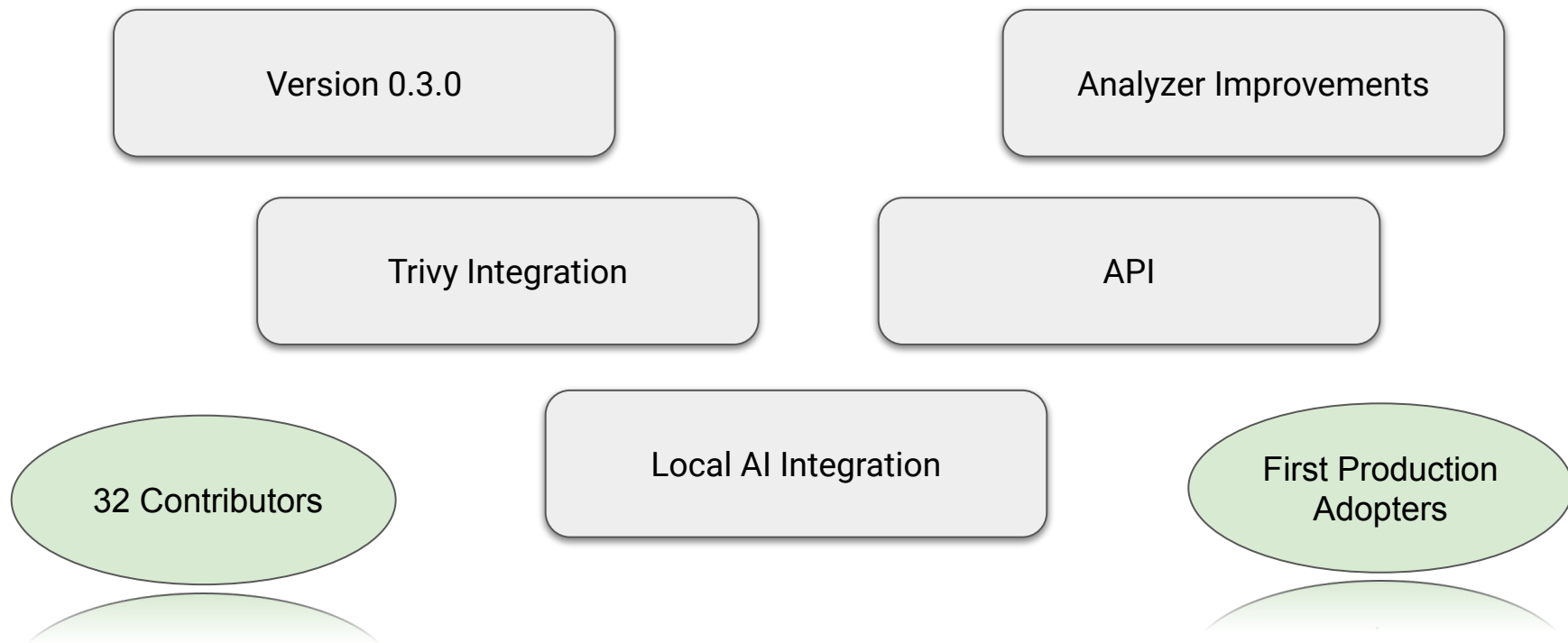




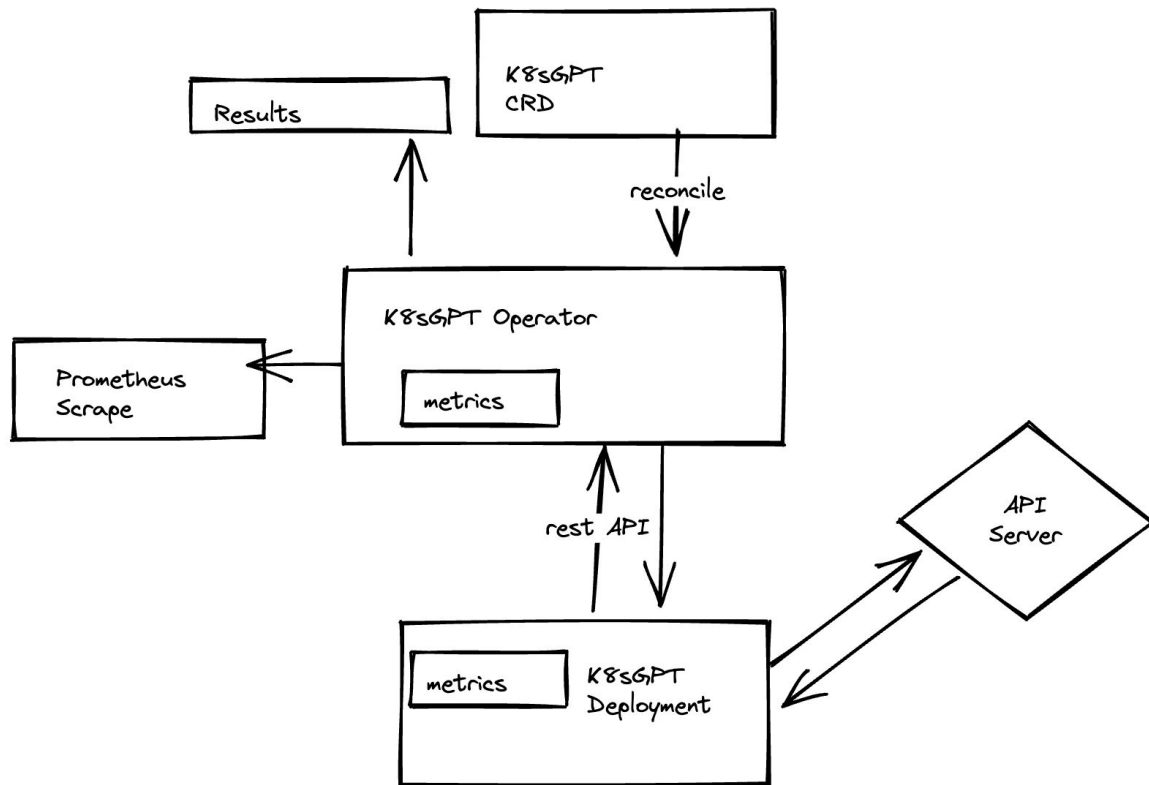
## Demonstration 2: Analyzing Problems with K8sGPT



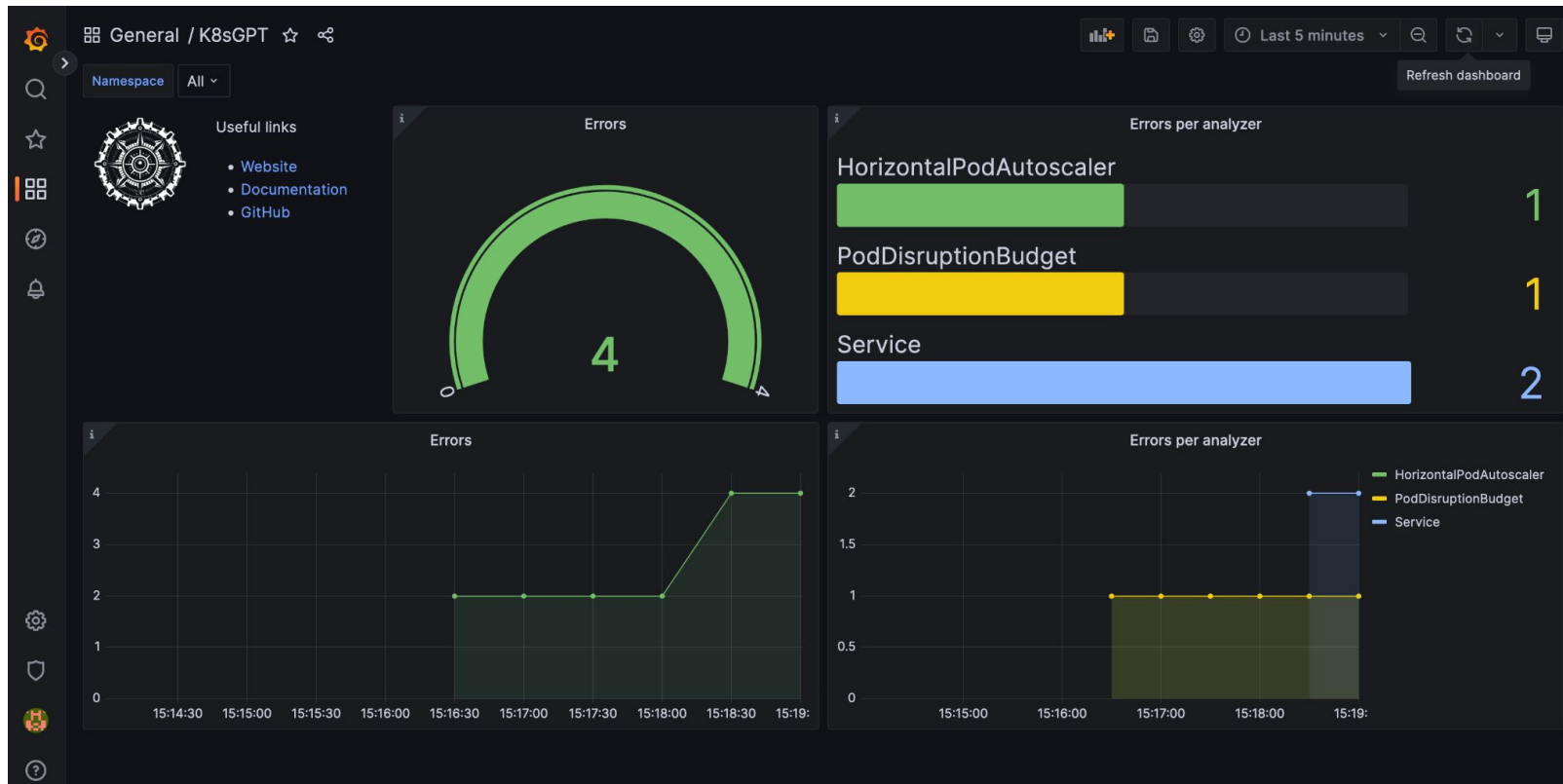
# Current State



# Automating K8sGPT



# Dashboards



# Other things we are working on



Local AI Models



Integrations



More and better Analyzers



More AI



# We're Donating K8sGPT to the CNCF

The screenshot shows the GitHub interface for the `cncf/sandbox` repository. The issue title is "[Sandbox] K8sGPT #38". It has 22 issues, 1 pull request, and 1 action. The issue is marked as "Open" and "2 tasks done". A comment from AlexsJones is visible, dated "last week". The comment content includes:

**Application contact emails**  
alexsimonjones@gmail.com, thomas.schuetz@t-sc.eu

**Project Summary**  
Kubernetes cluster analysis augmented with Artificial Intelligence

**Project Description**  
The popularity of Kubernetes has skyrocketed, but it has also led to a significant amount of complex knowledge regarding the management of cluster workloads. As new innovations emerge, it becomes increasingly challenging to manage workloads and identify potential issues.

K8sGPT employs codified SRE techniques, utilizing Artificial Intelligence (either hosted or bring-your-own) to simplify the description of complex problems and provide easy-to-implement solutions. This tool is accessible through CLI or as an Operator and can be integrated with observability projects to facilitate continuous monitoring and straightforward triage.

The goal of K8sGPT is to act as a virtual engineer, reducing the number of personnel required on your team and eliminating two of the most significant obstacles to cloud-native adoption: cost and skill.

**K8sGPT**  
k8sgpt-ai

Observability and Analysis · Monitoring  
Giving Kubernetes Superpowers to everyone

Website: k8sgpt.ai  
Repository: github.com/k8sgpt-ai/k8sgpt  
Crunchbase: crunchbase.com/organization/k8sgpt-ai  
LinkedIn: linkedin.com/company/k8sgpt-ai

Twitter: @k8sgpt  
First Commit: 2 months ago  
Contributors: 32  
Headquarters: London, United Kingdom

Latest Tweet: This week  
Latest Commit: this week  
Latest Release: this week  
Headcount: 1-10

**Tweets from @k8sgpt**

Follow on Twitter

Retweeted by developer-guy @developerGuyba · May 7  
We (@furfurkurtul) were added @k8sgpt to package managers @nixos\_org and @wolfi\_os  
#nixos #nixosdev

**Assignees**  
No one assigned

**Labels**  
New

**Projects**  
Sandbox Application Board  
Status: New +2 more

**Milestone**  
No milestone

**Development**  
No branches or pull requests

**Notifications**  
Customize



# Getting in Touch

Links and star us:

- Repository: <https://github.com/k8sgpt-ai/k8sgpt>

Share your thoughts!

- What would you like to see in K8sGPT?
- Ping us on our Slack: <https://k8sgpt.slack.com>

Meet the Team and contribute!

- PRs accepted!





# Thank you!

Vienna DevOps & Security Meetup, Vienna  
May 10th, 2023

**Thomas Schuetz**  
K8sGPT Maintainer

@thschue 



<https://k8sgpt.ai>  
<https://github.com/k8sgpt-ai>