INVESTIGATION OF OPENSOURCE SERVERLESS PLATFORMS

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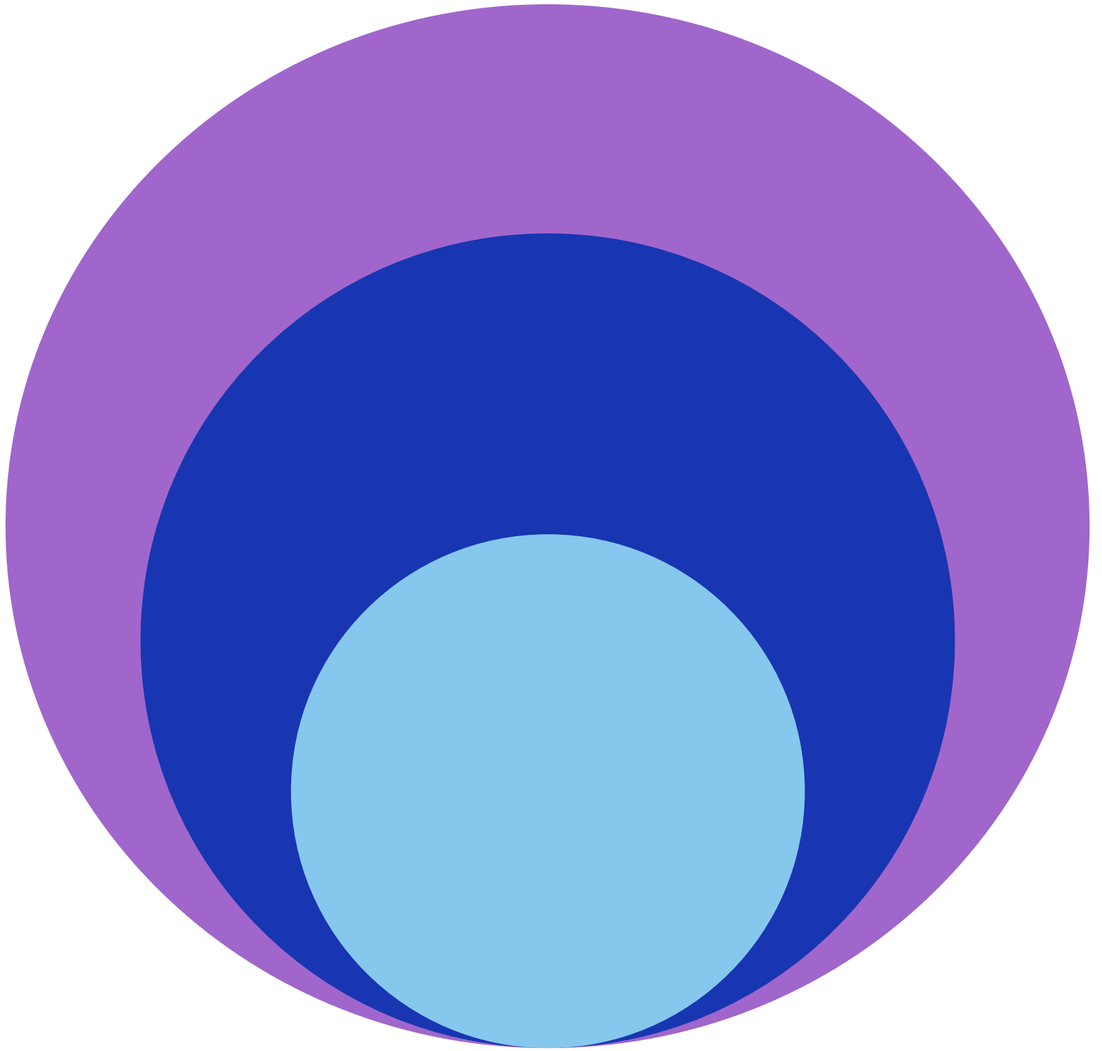
The Questions

What are the architectural components used to design?

How do throughput and latency behaviors on various types of workloads?

- Resource-based (CPU and memory)
- Workload-based (request per second (RPS) or concurrent requests)

How do auto-scaling work?



Initial Approach

1

Nuclio

- serverless platform for automated data science

2

OpenFaas

- makes it simple to deploy both functions and existing code to Kubernetes

3

Knative

- enterprise-level solution for leveraging Kubernetes

4

Kubeless

- Kubernetes-native serverless framework

References

[1] Understanding Open Source Serverless Platforms: Design Considerations and Performance

https://dl.acm.org/doi/10.1145/3366623.3368139

[2] Open Source Serverless Platforms

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https://www.openfaas.com/
https://knative.dev/docs/
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