Podman Community Call:

- AI-Lab podman-desktop extension
- ai-lab-recipes

June 4, 2024

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Emerging Technologies, Office of CTO
@sallyom

Red Hat

AI journey for an **Application Developer**

Red Hat

Announcement:

Come to DevConf.US in Boston Aug 14-16, it's FREE!!

- DevConf.US
- Containerization Guild will be there, Wed 5:30 PM

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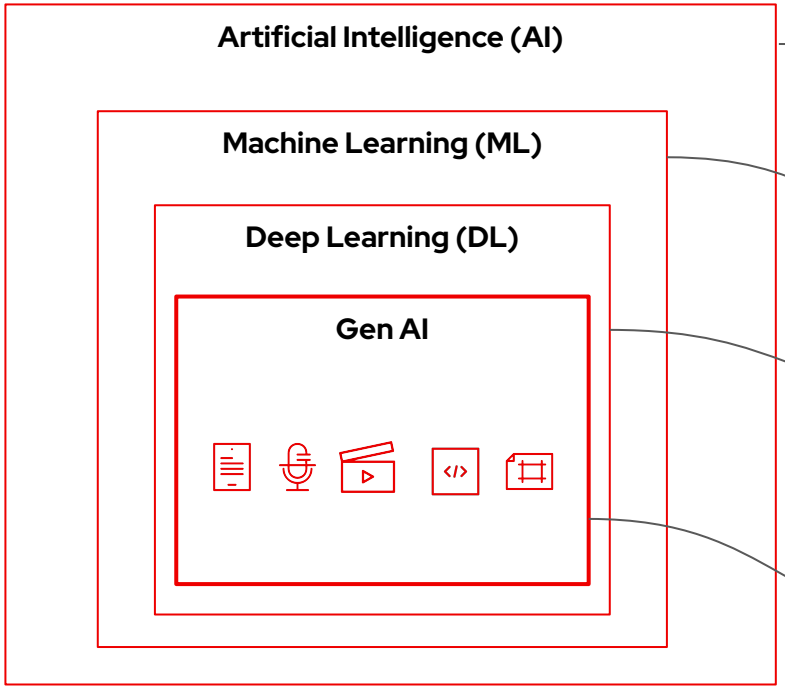
Watch Cedric’s presentation!

Generative AI Development from Local to Production

Red Hat

What is Generative AI?



Artificial Intelligence

A multidisciplinary field of Computer Science that aims to create systems capable of emulating and surpassing human-level intelligence

Machine Learning

A subfield for training computers to learn and make decisions from data, without explicit programming

Deep Learning

A subset from ML involved neural networks enabling complex pattern recognition and analysis from data

Gen AI Learning

Subfield focusing on generating new content such as text, images, code and more

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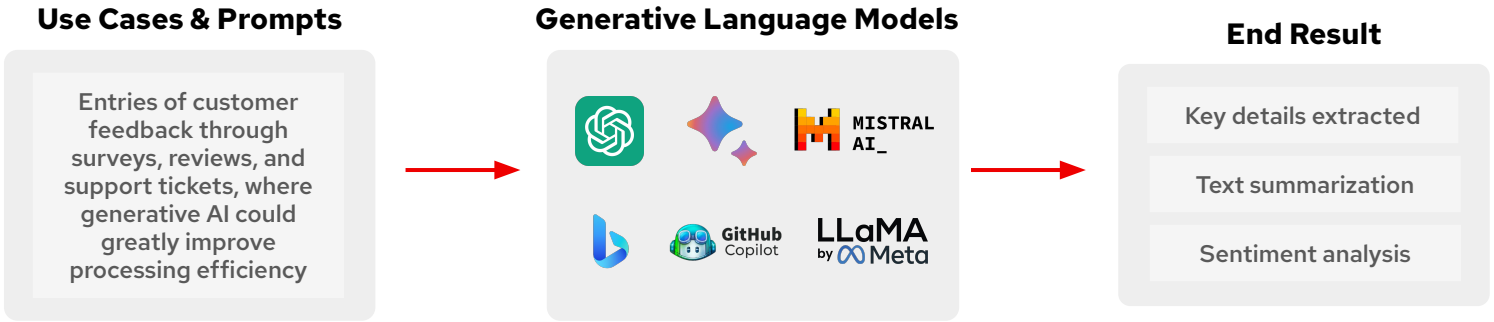
What is Generative AI?

Generative AI

Generative AI utilizes AI models to create text, images, videos, code, or data in response to prompts

LLMs

Large Language Models are a specialized type of AI, trained on massive datasets to generate outputs in natural, conversational language



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Adopting Generative AI for an Application Developer

Ideation & Prototyping

- Find LLMs
- Try prompts
- Experiment with your data
- Benchmarking

As a developer, how do I **evaluate** models and pick the best one for my use case?

Building & Refining

- Connect to data source
- Exception handling
- Limited fine tuning
- Retrieval-Augmented Generation (RAG)
- Chaining
- Evaluate flows

As a developer, how do I **build** an application with LLMs?

Operationalizing

- Model serving
- Endpoints
- Monitoring
- Integrate with apps

As a developer, how do I **deploy** my application with LLMs?

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How do I get started?

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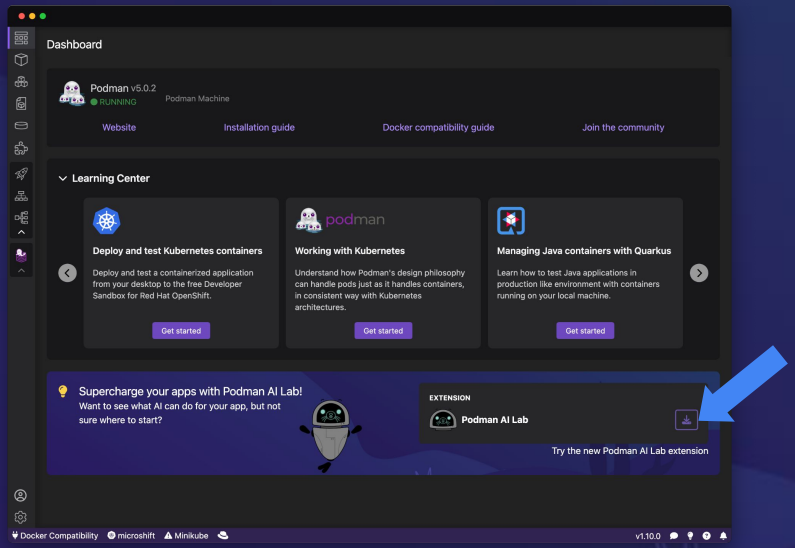
Podman AI Lab

Run LLMs locally and build AI applications



github.com/containers/podman-desktop-extension-ai-lab

Supported platforms:

Introducing: Podman AI Lab

Your developer environment for working with GenAI

Discover GenAI

- Get inspired by AI use cases
- Learn how to integrate AI in an optimal way
- Experiment with different compatible Models

Model Catalog

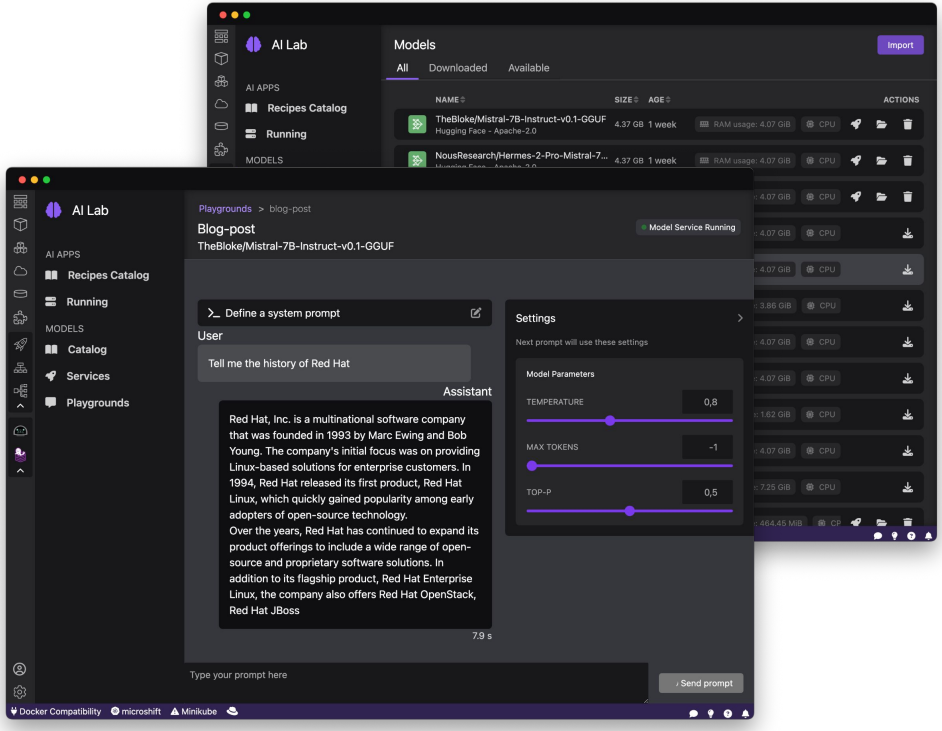
- Leverage a curated list of open source large language models available out of the box
- Import your own models

Run Models Locally

- Run models with an inference server running in UBI image
- Get OpenAI compatible API
- Use code snippets

Playground Environment

- Experiment with models and prompts
- Configure settings and system prompts
- Test and validate prompt workflows before using in your application



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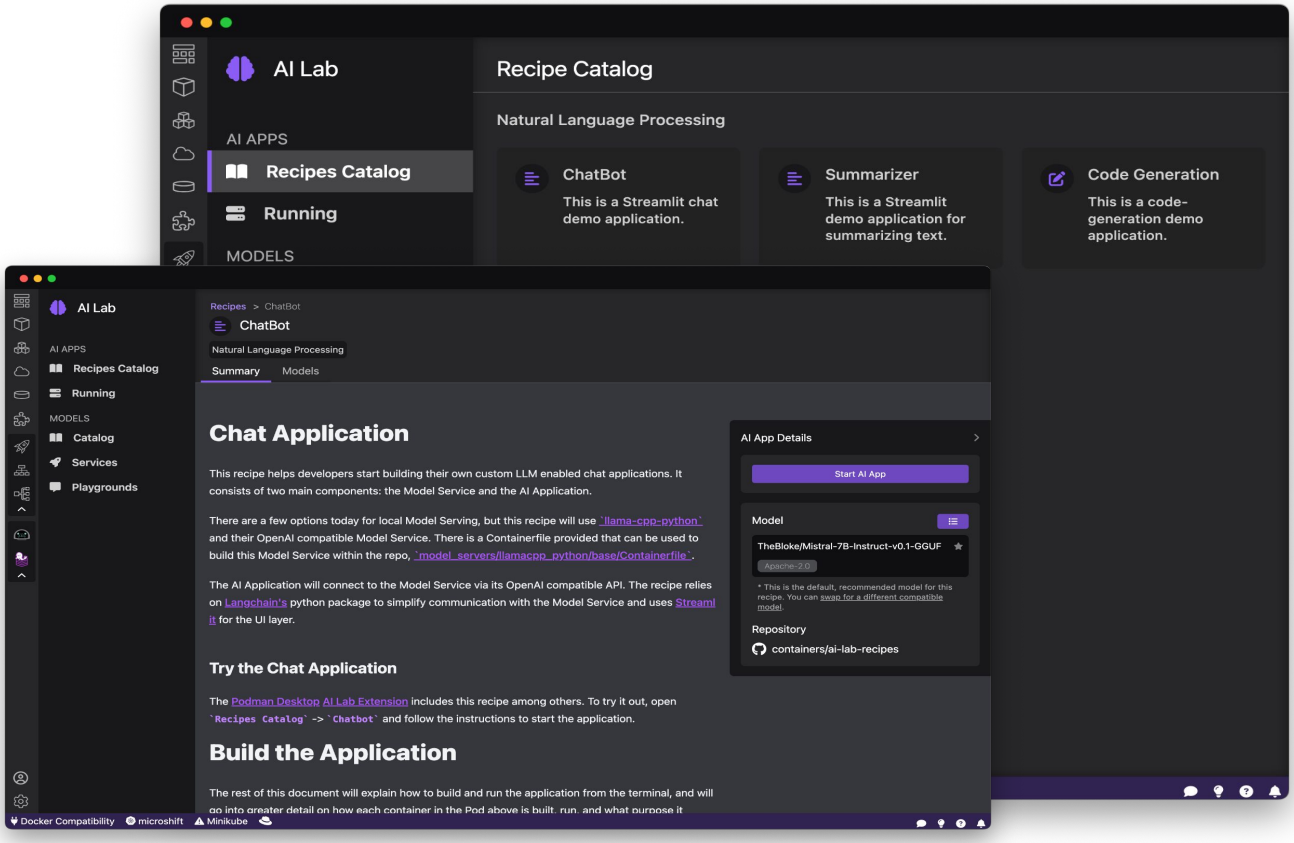
Recipes



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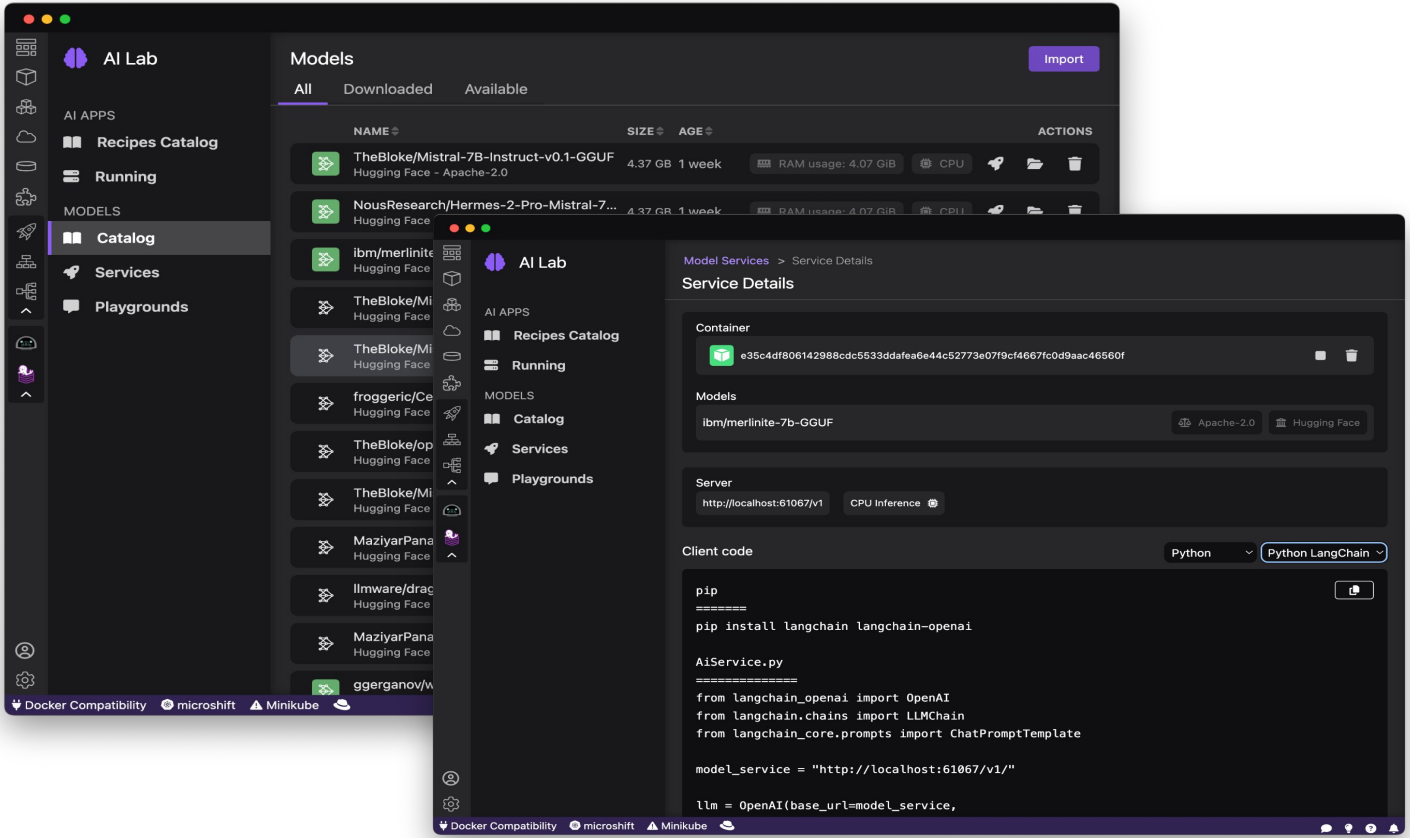
Model Catalog



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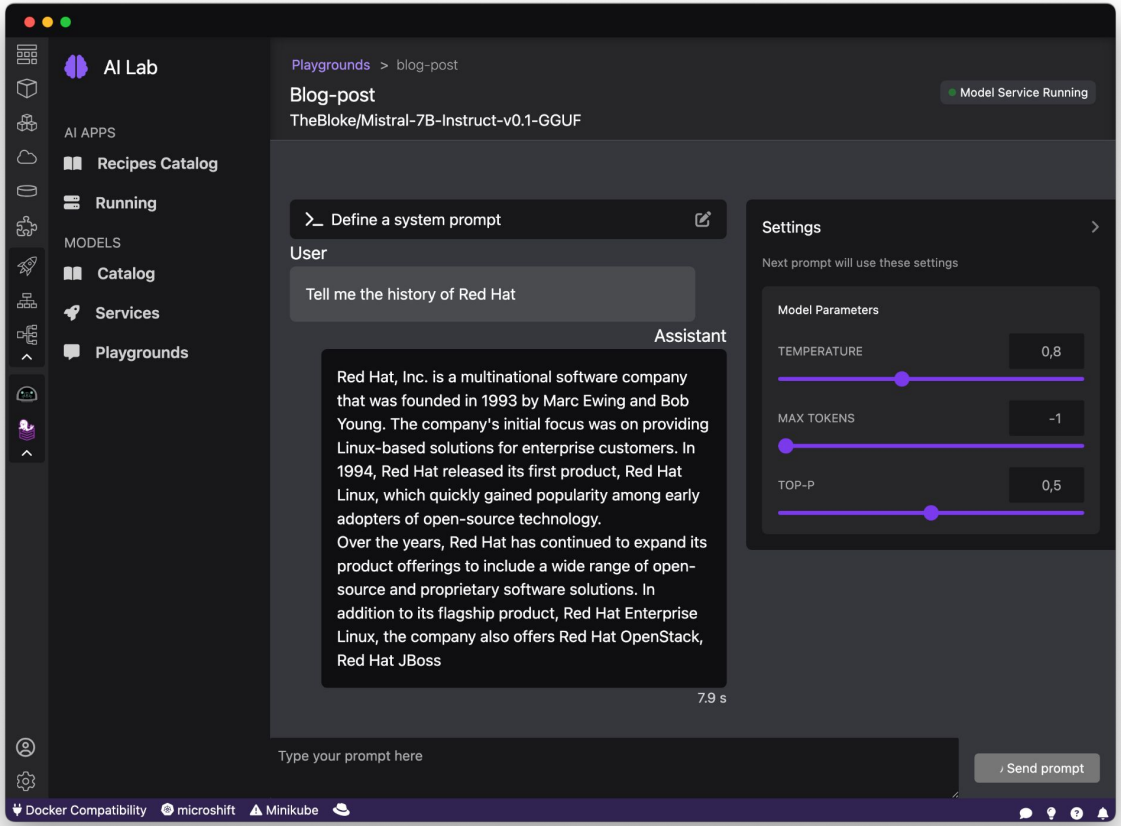
Playground Environments



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Demo Time!

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Tell me MORE about the recipes!

ai-lab-recipes

https://github.com/containers/ai-lab-recipes

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Demo Time!

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Blogs!

- podman-desktop ai-lab extension
- ai-lab-recipes

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Other resources!

- Andrej Karpathy interview
- Ollama
- LocalAI

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Get started with Podman & Podman Desktop!

Get involved with Podman and adopt a seal (figuratively)!

On the Web

Learn how to install Podman

podman.io

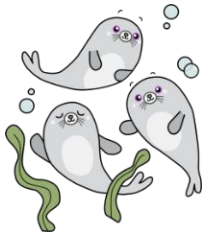
podman-desktop.io

Github

Contribute and report issues

github.com/containers/podman

github.com/containers/podman-desktop



Chat

Get connected with the community

podman.io/community

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Source:
https://developers.redhat.com/e-books/podman-action

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Thank you

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