

Llama Impact Hackathon

Nov 09 - Nov 10, 2024

The FynBots

GSAM



GenericSuite App Maker



<https://gsam-app.streamlit.app>

AI tool to enhance the software development

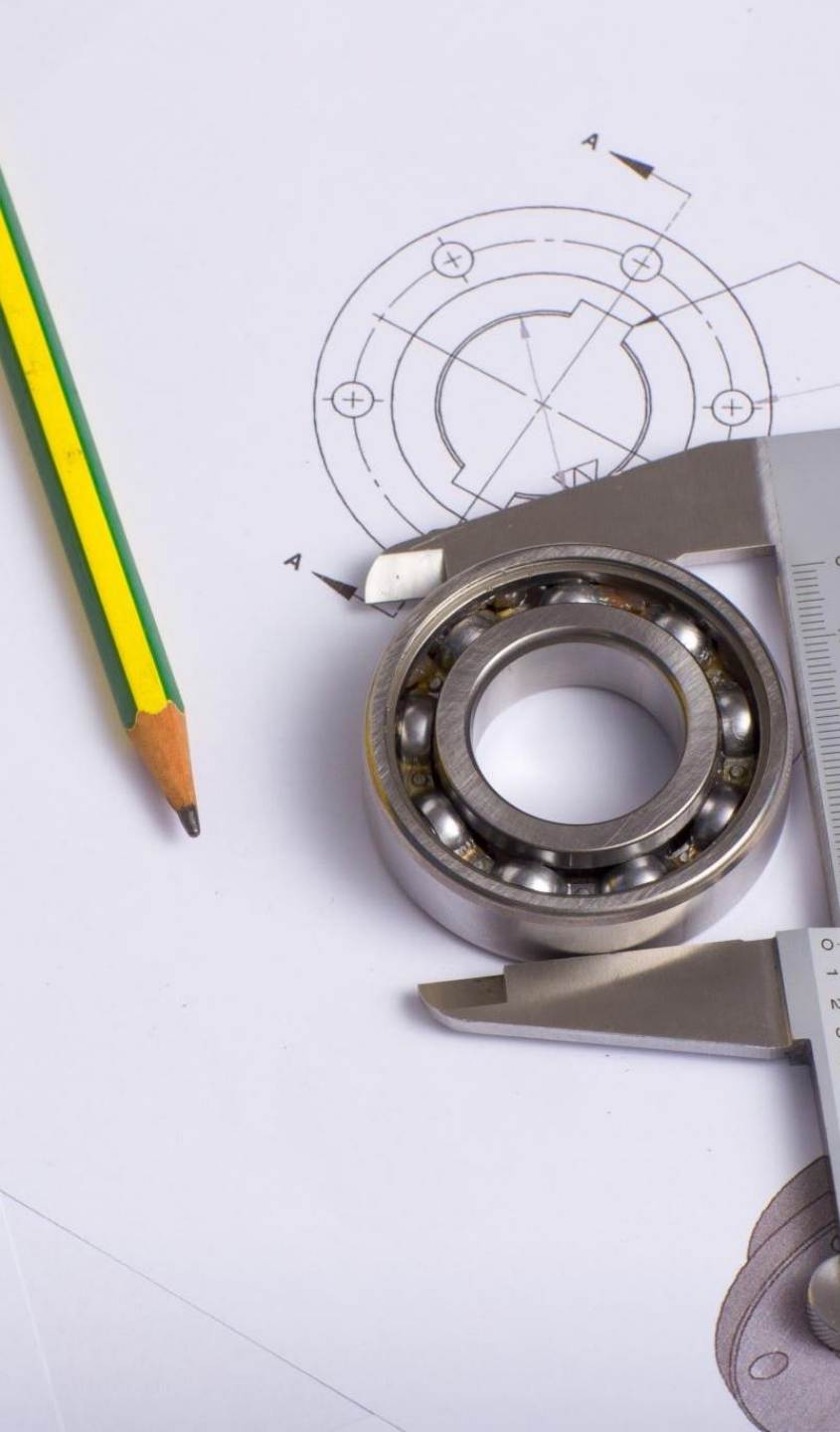


Problem Statement

- Reducing Barriers for Developers
- Have access to more creativity sources

Objective

- Build tools that streamline Meta Llama's development process, including Models implementation, prompt engineering, evaluation, and App ideation.



Solution: The GenericSuite App Maker



- Helps on the software development process for any Application.
- Generate code, images, video or answers from text prompts
- Kick start code to be used with GenericSuite



Technologies Used



Meta Llama models:

- Llama 3.2 3B + Llama 3.1 8B, 70B, and 405B

Together.ai

Huggingface Inference API + Flux.1

Rhymes Allegro video generation model

LlamaIndex

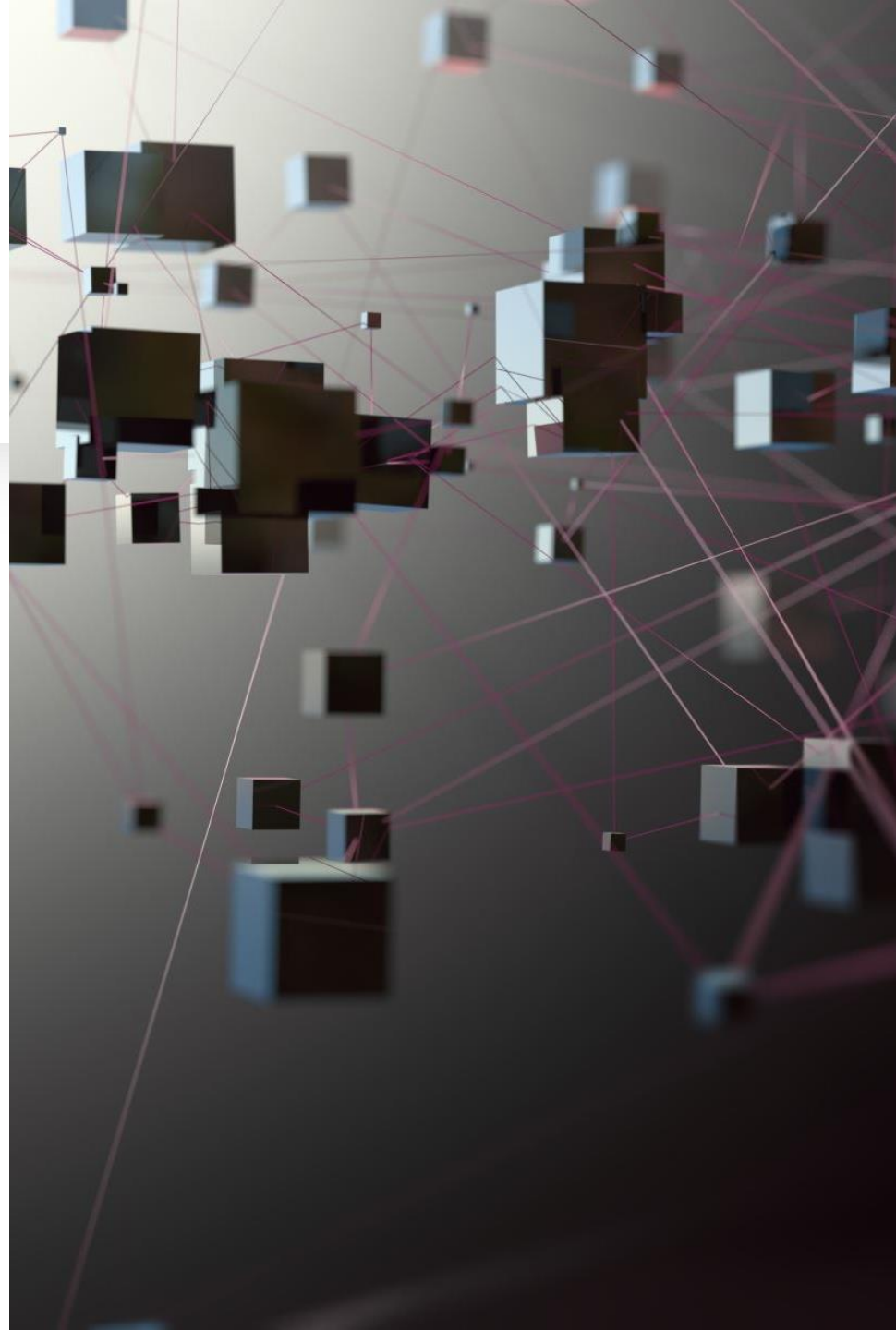
StreamLit

MongoDB Atlas

Python 3.10

Application Features

- Use a variety of AI Models
- Image and Video Generation
- Galleries to show generated images and videos
- Provider and Model selection
- Suggestions to generate App ideas with customize prompts
- Generate JSON configuration and Tools code for GenericSuite



Application Features [2]

- Embeddings and vectorized data with LlamaIndex
- Prompts optimization
- Generate name ideas
- Generate App description and database structures
- Generate PowerPoint presentations



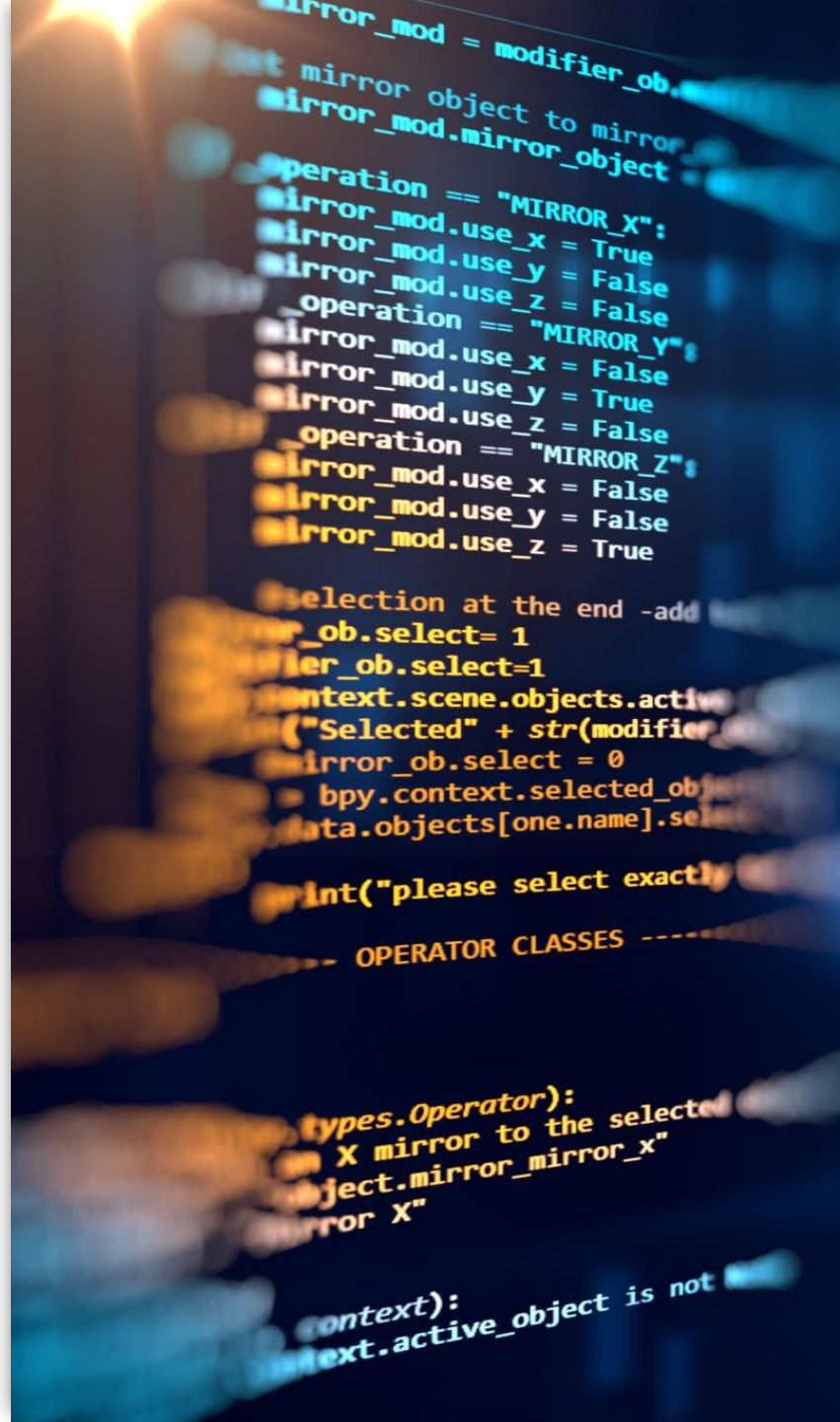


Benefits

- Enhancing App Development with AI-Powered Tools
- Simple UI for Generation Options
- Effortless Integration of New Models
- Your Creative Companion
- Gallery for Easy Review
- Efficient Code Generation with GenericSuite

How It Works

- User Inputs and Option Selection
- Customization for Ideation Tasks
- Prompt Generation
- API Call and Content Generation
- Prompt Enhancement (If Requested)



Main Page

The GenericSuite App Maker (GSAM) is a tool to help on the software development process for any Application. It allows to generate code, images, video or answers from a text prompt, and kick start code to be used with the GenericSuite libraries.

Data Management

Previous answers

The Construction Project Management System is

x

Create content for PowerPoint slides for a Web a

x

Create content for PowerPoint slides for a Web a

x

Create content for PowerPoint slides for a Web an`

x

Generate the application description and detailed

x

Generate detailed table

x

Deploy

GSAM v0.1.0

Video Gallery

Image Gallery

Give me catchy names for a web application about...

Give me ideas to develop a web application about...

Suggestions Prompt

Give me the ReactJs code for a AI Assistant, using Shadcn/UI

Give me a README file content for an application about...

Models Selection

Question / Prompt:

Main

App Ideation

Code Generation

Answer Question

Generate Video

Generate Image

Use Response as Prompt

☐ Enhance prompt

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LLM Inference

Design a

Give me web or mobile software application ideas t

give me the description and suggested database str

Emergency Alert System
Develop a web and mobile ap

A web-based tool that helps remote workers manage

An app that pairs students with study partners or

Language Learning Buddy
A language learning app th

code generation app

code generation app

Deploy

Video Gallery

Image Gallery

Suggestions Prompt

Models Selection

Question / Prompt:
code generation app

Main App Ideation Code Generation

Answer Question

Generate Video

Generate Image

Use Response as Prompt

☐ Enhance prompt

Detailed Response

Creating a code generation app can be a complex task, but I'll guide you through the process step-by-step. Here's an outline to help you build a simple code generation app using Python and Flask for the backend. This will be a web application where users can input certain parameters, and the app will generate code based on those inputs.

Prerequisites

1. Python installed on your machine.

2. Flask web framework installed. You can install it using pip:

```
pip install Flask
```

3. Basic understanding of HTML, CSS, and JavaScript for the frontend.

Step 1: Set Up the Flask Application

First, create a new directory for your project and set up a basic Flask application.

Suggestions Generation & Model Selection

Design a

Give me web or mobile software application ideas t

give me the description and suggested database str

Emergency Alert System
Develop a web and mobile ap

A web-based tool that helps remote workers manage

An app that pairs students with study partners or

Language Learning Buddy
A language learning app th

code generation app

code generation app

Deploy

GSAM v0.1.0 ✨

Video Gallery

Image Gallery

Chat-based Mental Health Companion: Create a web application that utilizes Meta Llama 3.1 70B to offer emotional support and companionship to users. The AI-powered chatbot can engage in conversations, provide words of encouragement, and even offer coping strategies for managing stress and anxiety.

Personalized Travel Planner: Create a mobile app that leverages Meta Llama 3.1 70B to provide users with personalized travel recommendations, itineraries, and booking suggestions. The app can take into account users' interests, budget, and preferences to curate a unique travel experience.

AI-powered Virtual Wardrobe: Develop a mobile app that allows users to upload pictures of their clothing items and create a virtual wardrobe. Using Meta Llama 3.1 70B, the app can suggest outfit combinations, provide fashion advice, and even allow users to virtually try on clothes without having to physically purchase them.

AI-driven Recipe Generator: Develop a web application that uses Meta Llama 3.1 70B to generate recipes based on users' dietary preferences, ingredient availability, and cooking skills. The app can also provide step-by-step cooking instructions, meal planning suggestions, and nutrition information.

Models Selection

LLM Provider	LLM Model
together_ai	meta-llama/Meta-Llama-3.1-405B-Instruct-Turbo
Text-to-Image Provider	Text-to-Image Model
huggingface	black-forest-labs/FLUX.1-schnell
Text-to-Video Provider	Text-to-Video Model
rhymes	allegro

Question / Prompt:

code generation app

Main

App Ideation

Code Generation

Answer Question

Generate Video

Generate Image

Use Response as Prompt

Enhance prompt

Suggestion Applied to Prompt

The Construction Project Management System is

I need a class to simulate the OpenAI client.chat.

I need a class to simulate the OpenAI client.chat.

give me video with the theme "The GenericSuite App

give me an image for The GenericSuite App Maker, a

give me an image for The GenericSuite App Maker, a

give me an image for The GenericSuite App Maker, a

Give me catchy names for a web application about a

GSAM v0.1.0 ✨

Video Gallery

Image Gallery

Suggestions Prompt

Models Selection

Question / Prompt:

AI-powered Virtual Wardrobe: Develop a mobile app that allows users to upload pictures of their clothing items and create a virtual wardrobe. Using Meta Llama 3.1 70B, the app can suggest outfit combinations, provide fashion advice, and even allow users to virtually try on clothes without having to physically purchase them.

Main

App Ideation

Code Generation

Answer Question

Generate Video

Generate Image

Use Response as Prompt

☐ Enhance prompt

Processing text generation...

Code Generation Example

The GenericSuite App Maker (GSAM) is a tool to help on the software development process for any Application. It allows to generate code, images, video or answers from a text prompt, and kick start code to be used with the GenericSuite libraries.

Data Management

Previous answers

- The Construction Project Management System is
- Create content for PowerPoint slides for a Web a
- Create content for PowerPoint slides for a Web a
- Create content for PowerPoint slides for a Web an
- Generate the application description and detailed
- Generate detailed table

Deploy

GSAM v0.1.0 ✨

Video GalleryImage Gallery

Give me catchy names for a web application about...Give me ideas to develop a web application about...Suggestions Prompt

Give me the ReactJs code for a AI Assistant, using Shadcn/UIGive me a README file content for an application about...

Models Selection

Question / Prompt:

The **"Construction Project Management System"** is designed to help construction companies manage and track multiple construction projects and their respective phases. This system allows companies to store information about project owners, project details, various stages of construction, and the materials/resources required for each phase.

This system includes:

Main App Ideation **Code Generation**

Generate Config & Tools Code☒ Use EmbeddingsUse Response as Prompt☐ Enhance prompt

Detailed Response

JSON Files

Frontend

- owners.json

```
{  "baseUrl": "construction_project_management_system/owners",  "title": "Owners",  "name": "Owner",  "component": "Owners",  "dbApiUrl": "owners",  "primaryKeyName": "owner_id",  "defaultOrder": "name|asc",  "mandatoryFilters": {},  "userIdFilter": false,
```

App Ideation Page

The GenericSuite App Maker (GSAM) is a tool to help on the software development process for any Application. It allows to generate code, images, video or answers from a text prompt, and kick start code to be used with the GenericSuite libraries.

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GSAM v0.1.0

Video Gallery

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Give me catchy names for a web application about...

Give me ideas to develop a web application about...

Suggestions Prompt

Give me the ReactJs code for a AI Assistant, using Shadcn/UI

Give me a README file content for an application about...

Models Selection

Question / Prompt:

Create content for PowerPoint slides for a `Web` application about `The GenericSuite App Maker is a tool to help on the software development process for any Application. It allows to generate code, images, video or answers from a text prompt, and kick start code to be used with the GenericSuite libraries.` , including the main information for each slide and prompts for generating corresponding images.

The presentation should contain the following slides:

Main

App Ideation

Code Generation

Application Ideation Form

This form will help you generate the initial plan for the application idea. Please fill in the following fields:

Application name

GSAM

Subtitle

The GenericSuite App Maker

Summary

The GenericSuite App Maker is a tool to help on the software development process for any Application. It allows to generate code, images, video or answers from a text prompt, and kick start code to be used with the GenericSuite libraries.

Application type

Web

App Ideation Page [2]

The Construction Project Management System is

I need a class to simulate the OpenAI client.chat.

I need a class to simulate the OpenAI client.chat.

give me video with the theme "The GenericSuite App

give me an image for The GenericSuite App Maker, a

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give me an image for The GenericSuite App Maker, a

Give me catchy names for a web application about a

x

x

x

x

x

x

x

Deploy

Technologies Used

- * LlamaIndex
- * StreamLit
- * MongoDB Atlas
- * Python 3.10

Application Features

- * Prompt Engineering: there's an option to allow the prompts/questions optimization to take more advantage from the Model's capabilities.
- * Naming: generate name ideas for the App.
- * App Structure: generate the App description and database table structures.
- * App Presentation: generate PowerPoint slides for the App, including the content, speaker notes, and image generation prompts.

How It Works

- * User inputs a question or prompt and select the generation option (LLM, Image, Video, Code, Name, Structure, Presentation).
- * In the case of Ideation (to generate Naming, Structure, Presentation), the tool ask additional questions to the user to customize the generation prompt.
- * The tool generates a prompt for the LLM.
- * Then it call the selected Provider API and Model to generate the LLM response. image or video.

Benefits

- * Easy to configure to add new AI LLM, Image and Video generation models, along with API / Platform providers.
- * The perfect companion for creative process of the App naming, description and structure, presentation and slide generation using modern AI technologies.
- * The generated images and videos are displayed in a gallery for easy review.
- * The process of generate configurations and App initial code using the GenericSuite library is more efficient and faster.

Feedback and Future Development

- * User authentication and authorization.
- * Files attachments support.
- * GenericSuite application initial code generation, creating the physical JSON files, the frontend and backend code and the Langchain Tools to create RAG applications.
- * Save resulting files in the cloud, like AWS S3, Google Cloud Storage, Azure Blob Storage, etc.

Future Vision

- * The intention is to integrate the tool with the GenericSuite library, and add more functionalities to maintain the Apps.

When you are ready, click one of the buttons below to generate the application idea.

Generate App Names

Generate App Structure

Generate Presentation

Presentation Generation

Previous answers

The Construction Project Management System is

x

Create content for PowerPoint slides for a Web a

x

Create content for PowerPoint slides for a Web a

x

Create content for PowerPoint slides for a Web an

x

Generate the application description and detailed

x

Generate detailed table

x

```
{
  {
    "title": "Benefits",
    "content": "* The developer has a simple UI to select the generation c
    "speaker_notes": "Persuade the audience why these benefits help addres
    "image_prompt": "Create an infographic or chart highlighting key benef
  },
  {
    "title": "Feedback and Future Development",
    "content": "The tool is still in development, and there's a lot of imp
    "speaker_notes": "Emphasize user satisfaction and iterate potential ev
    "image_prompt": "Create a slide image with text boxes or sticky notes
  },
  {
    "title": "Future Vision",
    "content": "Describe possible enhancements like allowing users to choo
    "speaker_notes": "Highlight the future possibilities of `The GenericSu
    "image_prompt": "Depict a futuristic or evolving version of `The Gener
  },
  {
    "title": "Thank You Slide",
    "content": "A final message thanking the audience for their interest i
    "speaker_notes": "Express gratitude and briefly redirect users to foll
    "image_prompt": "Design a thank you slide including a message of appre
  }
}
```

Generate Presentation again

Download Presentation

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Image Generation

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Video Gallery

Image Gallery

Give me catchy names for a web application about...

Give me ideas to develop a web application about...

Suggestions Prompt

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Models Selection

Question / Prompt:

code generation app

Main App Ideation Code Generation

Answer Question

Generate Video

Generate Image

Use Response as Prompt

☐ Enhance prompt

Detailed Response

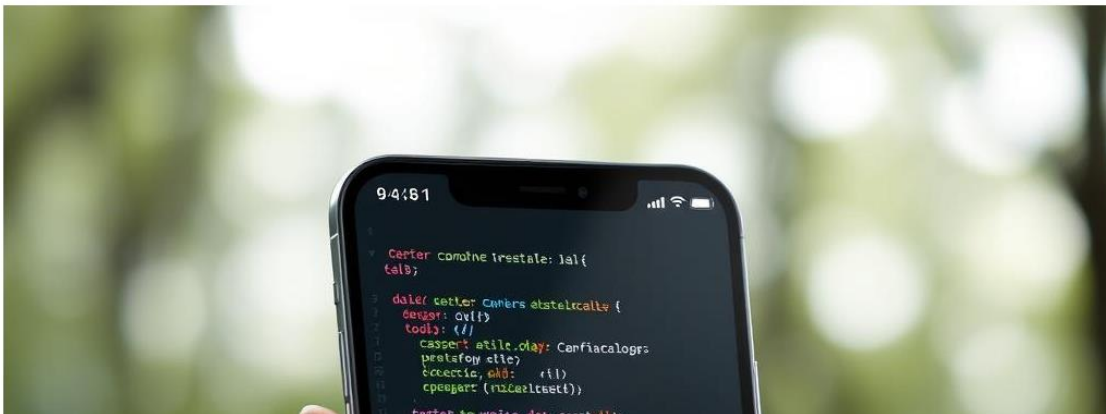


Image Gallery

Deploy ⋮

GSAM v0.1.0 ✨

Image Gallery

Generate Images

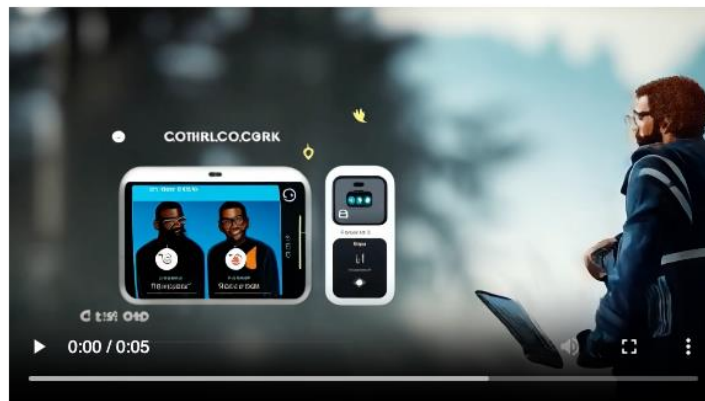


Video Galley

GSAM v0.1.0 ✨

Video Gallery

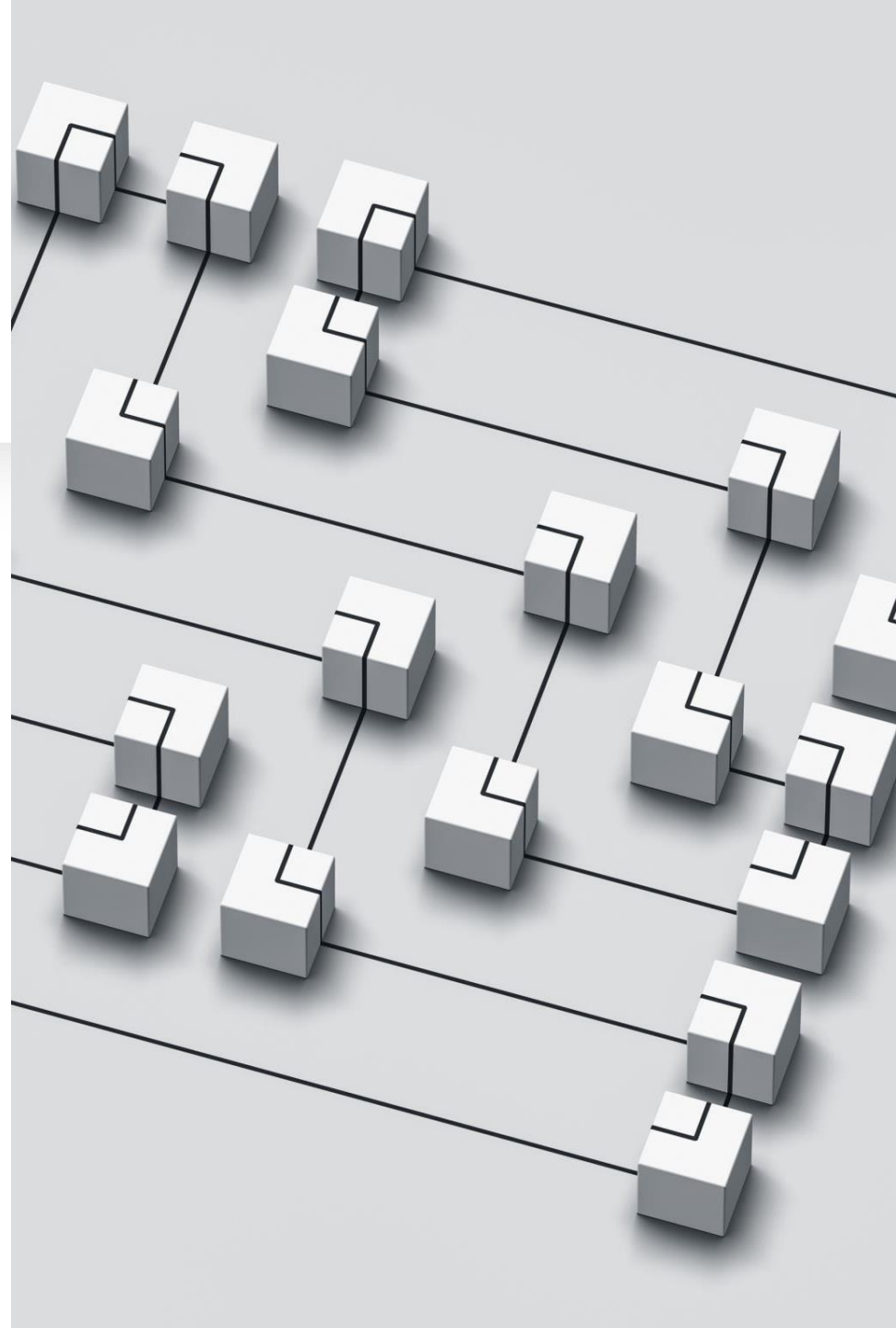
Generate Videos

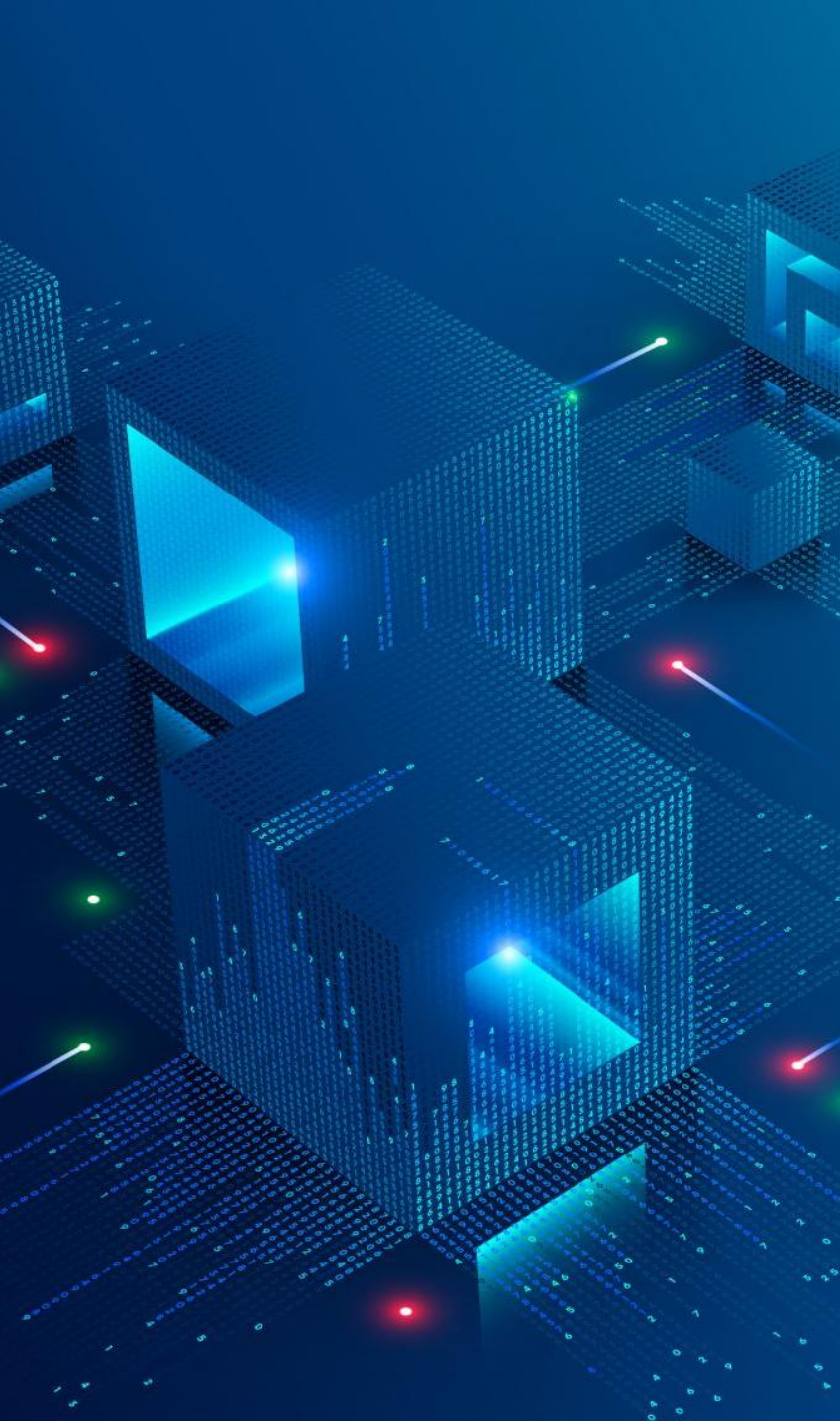


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Feedback and Future Development

- Enhanced LLM Model Configurations
- User Authentication and Authorization
- File Attachments Support
- GenericSuite Initial Code Generation
- Cloud Storage Integration





Future Vision

- Advanced AI and Machine Learning Integration
- Seamless Integration with GenericSuite Library
- Expanded Generation Capabilities



Thanks for your interest in
the application

