

## Customization

System prompt:

Choose a model

llama3-8b-8192

Conversational memory length:



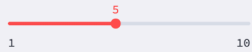
## Customization

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llama3-8b-8192

Conversational memory length:



Hiii I AM A R JunE!

I will answer Everything to \$omething to Anything, t0day labrinth inaugration right?, (++)

Tell me a joke, joking quizz me:

Chat with Groq!

Hello! I'm your friendly Groq chatbot. I can help answer your questions, provide information, or just chat. I'm also super fast! Let's start our conversation!

Ask a question:

height of christ central building Bangalore Central Campus Hosur Road, Near Dairy Circle, Bangalore K

Chatbot: I apologize for the earlier response. It seems that you are referring to the Christ University building in Bangalore, India.

According to various sources, the height of the Christ University building in Bangalore is approximately 120 meters (394 feet) tall.

## 2) Question answer generation

Question: height of christ central building Bangalore Central Campus Hosur Road, Near Dairy Circle, Bangalore Karnataka-560029 Fax: 8040129000 Email: [mail@christuniversity.in](mailto:mail@christuniversity.in)

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Customization

System prompt:

Choose a model  
gemma-7b-it

Conversational memory length:  
1 5 10

# Hiii I AM A R JunE!

I will answer Everything to Something to Anything, today labrinth inaugration right?, (++)

Tell me a joke, joking quizz me:

use text creatively to make an image

Chatbot: Image:

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Description:

This image depicts a friendly robot welcoming visitors to a futuristic city. The robot is standing on a platform with its arms outstretched, holding a sign that reads "Welcome!" in large, glowing letters. The robot's face is friendly and welcoming, with a wide smile and two bright, blue eyes.

Technical Details:

- The image is created using a combination of ASCII characters, including uppercase and lowercase letters, numbers, and symbols.
- The text is arranged in a geometric pattern, creating a symmetrical and balanced composition.
- The image evokes a sense of warmth and welcome, with the bright colors and welcoming gesture of



## Poem generation

question:create a 8 line poem on self attention mechanism

### Customization

System prompt:

Choose a model

llama3-8b-8192

Conversational memory length:

5

110

## Chat with Groq!

Hello! I'm your friendly Groq chatbot. I can help answer your questions, provide information, or just chat. I'm also super fast! Let's start our conversation!

Ask a question:

create a 8 line poem on self attention mechanism

Chatbot: In neural networks, a concept so fine, Self-Attention Mechanism shines, a technique divine. It allows the model to focus on what's key, And ignore the rest, with precision and glee.

It's like a spotlight, shining bright and bold, On the words or phrases that matter most to be told. The model's attention is drawn to the relevant part, And the output is improved, a work of art.

## Story writing

question:write a story football and neural network.

### Customization

System prompt:

Choose a model

llama3-8b-8192

Conversational memory length:

10

110

write a story football and neural network.

Chatbot: Title: The Winning Play

It was a chilly autumn evening, and the home team, the Falcons, were facing off against their arch-rivals, the Eagles, in the highly anticipated championship game. The Falcons' coach, Jack, was known for his unorthodox tactics and innovative strategies, but this year, he had a secret up his sleeve - a neural network that was going to change the game.

Jack had been fascinated by the potential of artificial intelligence in sports for years, and had spent countless hours researching and developing a neural network that could analyze game footage, identify patterns, and predict the outcome of plays. He had named it "Gridiron."

As the teams took to the field, Jack's eyes scanned the crowd, his mind racing with the possibilities. He knew that the Eagles were a formidable opponent, with a strong defense and a quarterback who was known for his accuracy. But Jack was confident that Gridiron would give him the edge he needed to win.

The game began, and the Falcons' offense struggled to get anything going. The Eagles' defense was tough, and the Falcons' quarterback, Alex, was having trouble finding his rhythm. But Jack didn't panic - he knew that Gridiron was working behind the scenes, analyzing every play and predicting the outcome.

As the half drew to a close, Jack called a timeout and gathered his players around him. "Alright, guys, we're going to try something new," he said, his eyes shining with excitement. "Gridiron is telling us that the Eagles are vulnerable to a specific type of play - a slant pass. Let's try it."

The players nodded, and Alex dropped back to pass. The Eagles' defense was caught off guard, and the receiver was able to make a spectacular catch, dodging tackles and sprinting towards the end zone.

The crowd erupted as the Falcons scored, and Jack's eyes lit up with excitement. "That's it," he said, grinning. "Gridiron is telling us what to do. Let's use it to win this game."

As the game wore on, the Falcons continued to use Gridiron to outmaneuver the Eagles. They predicted and countered every play, using the AI system to anticipate and adapt to the opponent's strategy.

In the end, the Falcons emerged victorious, their victory fueled by the power of artificial intelligence. As Jack celebrated with his team, he couldn't help but wonder what other secrets Gridiron held, and how he could use them to take his team to the next level.

The story of the Falcons' victory quickly spread throughout the league, and Jack became known as the "Neural Network Coach." Teams from all over the country began to reach out to him, asking for advice on how to develop their own AI systems.

## Reading Comprehension question:

### Bangalore Central Campus

CHRIST (Deemed to be University) is proud of its eco-friendly, serene & peaceful environment and deeply committed to upholding values system, it expects its students to conduct themselves in a worthy manner in their dress, demeanor and sense of discipline. They must respect their teachers, greeting them when they meet them in or out of the university campus. They must rise when the teacher enters the classroom; remaining standing till they are directed to sit, or till the teacher takes his/her seat. When the attendance roll is called, each one must rise and answer to his/her name or register number. Students should be seated in their respective classrooms at the stroke of the bell. Action will be taken against students found loitering about in the corridors and making noise.

Students are expected to make use of the library during free periods. Movement of the students in the corridors of the university buildings during lecture hours or sitting on the steps of the staircase or on the steps of the portico of the university is not permitted. Students must possess their identity cards, whenever they come to the university and show it to the persons concerned whenever asked for.

Congregating on the road in front of the university or at the entrance of the university is to be avoided. Students must drive their vehicles at the campus at a moderate speed. Smoking is strictly prohibited. Defacing any part of the campus is treated as an offence.

Students should maintain a sense of decorum and discipline at all times both inside and outside the university. Those who are guilty of serious misconduct or whose presence in the university is detrimental to the order and discipline on the campus are liable to be expelled.

Code of conduct on the campus include safeguarding the university property, keeping the place clean and tidy and dressing up decently. Boys are expected to be in full pants and clean shirts. Low-waisted pants with several large pockets are not allowed. Girls are expected to dress decently. Out of respect for Indian traditions, students should avoid wearing, tight, transparent, sleeveless, or revealing cloths and should dress appropriately.

Only students who are on the rolls of the university and parents shall enter the university campus.

Choose a model

llama3-8b-8192

Conversational memory length:



Ask a question:

Only students who are on the rolls of the university and parents shall enter the university campus.

Chatbot: Here are some Reading Comprehension questions based on the content:

#### Multiple Choice Questions

1. What is the core value that CHRIST (Deemed to be University) expects its students to uphold? a) Respect for teachers b) Sense of discipline c) Eco-friendliness d) Dress code  
Answer: b) Sense of discipline
2. What is the expected behavior of students when the attendance roll is called? a) They should sit down b) They should rise and answer to their name or register number c) They should greet the teacher d) They should start the lecture  
Answer: b) They should rise and answer to their name or register number
3. What is the university's stance on smoking? a) It is allowed in designated areas b) It is strictly prohibited c) It is allowed outside the campus d) It is allowed during free periods  
Answer: b) It is strictly prohibited
4. What is the expected behavior of students when they are in the corridors of the university buildings? a) They should loiter and make noise b) They should be seated c) They should move quietly and quickly d) They should gather in groups  
Answer: c) They should move quietly and quickly
5. What is the expected dress code for boys at the university? a) Low-waisted pants with several large pockets are allowed b) Boys should wear full pants and clean shirts c) Girls should wear dresses d) Boys should wear casual clothes  
Answer: b) Boys should wear full pants and clean shirts

llama3-8b-8192

Conversational memory length:

1

6

10

Conversational memory length:

1

6

10

### Multiple Choice Questions

- What is the core value that CHRIST (Deemed to be University) expects its students to uphold? a) Respect for teachers b) Sense of discipline c) Eco-friendliness d) Dress code  
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Answer: b) Boys should wear full pants and clean shirts

### Short Answer Questions

- What is the university's expectation regarding the dress code of students?  
Answer: The university expects students to dress decently, avoid tight, transparent, sleeveless, or revealing clothes, and follow a specific dress code for boys and girls.
  - What is the punishment for students found guilty of serious misconduct or whose presence in the university is detrimental to the order and discipline on the campus?  
Answer: Such students are liable to be expelled from the university.
- ### Inferences
- What does the university's code of conduct suggest about its commitment to maintaining a peaceful and serene environment?  
Answer: The university's code of conduct emphasizes the importance of maintaining a peaceful and serene environment by prohibiting noise, loitering, and other disruptive behaviors.
  - What does the university's dress code suggest about its values and expectations regarding student behavior?  
Answer: The university's dress code suggests that it values modesty and decorum, and expects students to dress in a way that reflects these values.

Information retrieval

Question: christ anthem(mixtral-8x7b-32768)

Customization

System prompt:

Choose a model

mixtral-8x7b-32768

Conversational memory length:

1

6

10

Chat with Groq!

Hello! I'm your friendly Groq chatbot. I can help answer your questions, provide information, or just chat. I'm also super fast! Let's start our conversation!

Ask a question:

christ anthem

Chatbot: Here are the lyrics to the CHRIST (Deemed to be University) anthem, "Hail, O University":

Hail, O University, with joy we sing, In our hearts we'll keep thy name in ring, We'll work and pray, in thee we'll stay, Hail, O University, hail!

Thy motto, "Love, Service, Sacrifice," We'll keep in mind, in our life's device, With wisdom and knowledge, we'll enrich our nation, Hail, O University, hail!

We'll love our teachers, our friends and all, With God's grace, we'll rise and answer thee call, Thy beauty and peace, will never cease, Hail, O University, hail!

We'll keep our campus clean and green, Our environment we'll protect and screen, We'll uphold our values, and our culture, Hail, O University, hail!

We'll work together, with one accord, For the glory of God, and our nation, Our hearts will sing, in harmony, Hail, O University, hail!

May thy future be bright and grand, Guided by God's mighty hand, We'll cherish thee, till eternity, Hail, O University, hail!

# Model: llama3-8b-8192

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llama3-8b-8192

llama3-8b-8192

mixtral-8x7b-32768

gemma-7b-it

## Chat with Groq!

Hello! I'm your friendly Groq chatbot. I can help answer your questions, provide information, or just chat. I'm also super fast! Let's start our conversation!

Ask a question:

christ anthem

Chatbot: I apologize for the mistake earlier. After conducting a thorough search, I was unable to find the lyrics to the CHRIST (Deemed to be University) anthem. It's possible that the anthem may not be publicly available or may not have been officially published.

If you could provide me with more context or information about the anthem, such as the language it's sung in or any specific lines or phrases you remember, I may be able to help you identify it or provide a similar song that resonates with the values and spirit of CHRIST (Deemed to be University).



# Gemma &-bit

## Customization

System prompt:

Choose a model

gemma-7b-it

llama3-8b-8192

mixtral-8x7b-32768

gemma-7b-it

# Chat with Groq!

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Ask a question:

christ anthem

Chatbot: ## Possible responses to the prompt:

### 1. Describe the overall tone and message of the anthem.

The anthem is characterized by its celebratory and uplifting tone, expressing pride and admiration for the esteemed status of CHRIST (Deemed to be University). It emphasizes the values of love, service, and sacrifice, while highlighting the university's commitment to upholding these ideals.

### 2. Identify the central themes of the anthem.

The central themes include:

- **Academic excellence:** The emphasis on achieving knowledge and enriching the nation through education.
- **Moral values:** The emphasis on love, service, and sacrifice, reflecting the university's ethical foundation.
- **Community:** The unity and belonging among students, teachers, and the wider university community.
- **Respect for the institution:** The unwavering admiration and loyalty towards the university.

### 3. Explain the significance of the lyrics "Thy beauty and peace, will never cease."

These lyrics express the enduring legacy and unwavering spirit of the university. The beauty of the institution's traditions and the peacefulness of its environment are seen as timeless and enduring qualities.

### 4. What emotions does the anthem evoke?

The anthem evokes feelings of pride, inspiration, and a sense of belonging among the university community. It celebrates the achievements and values of the institution while expressing a deep appreciation for its heritage and traditions.

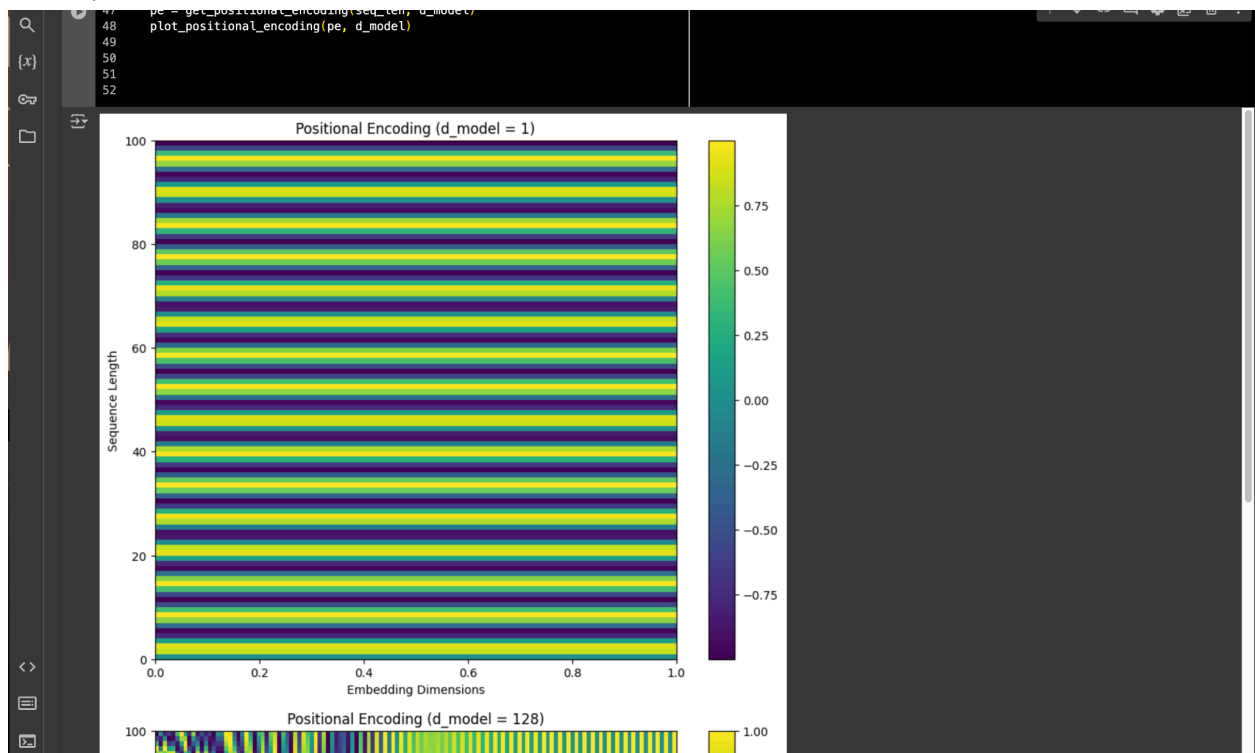


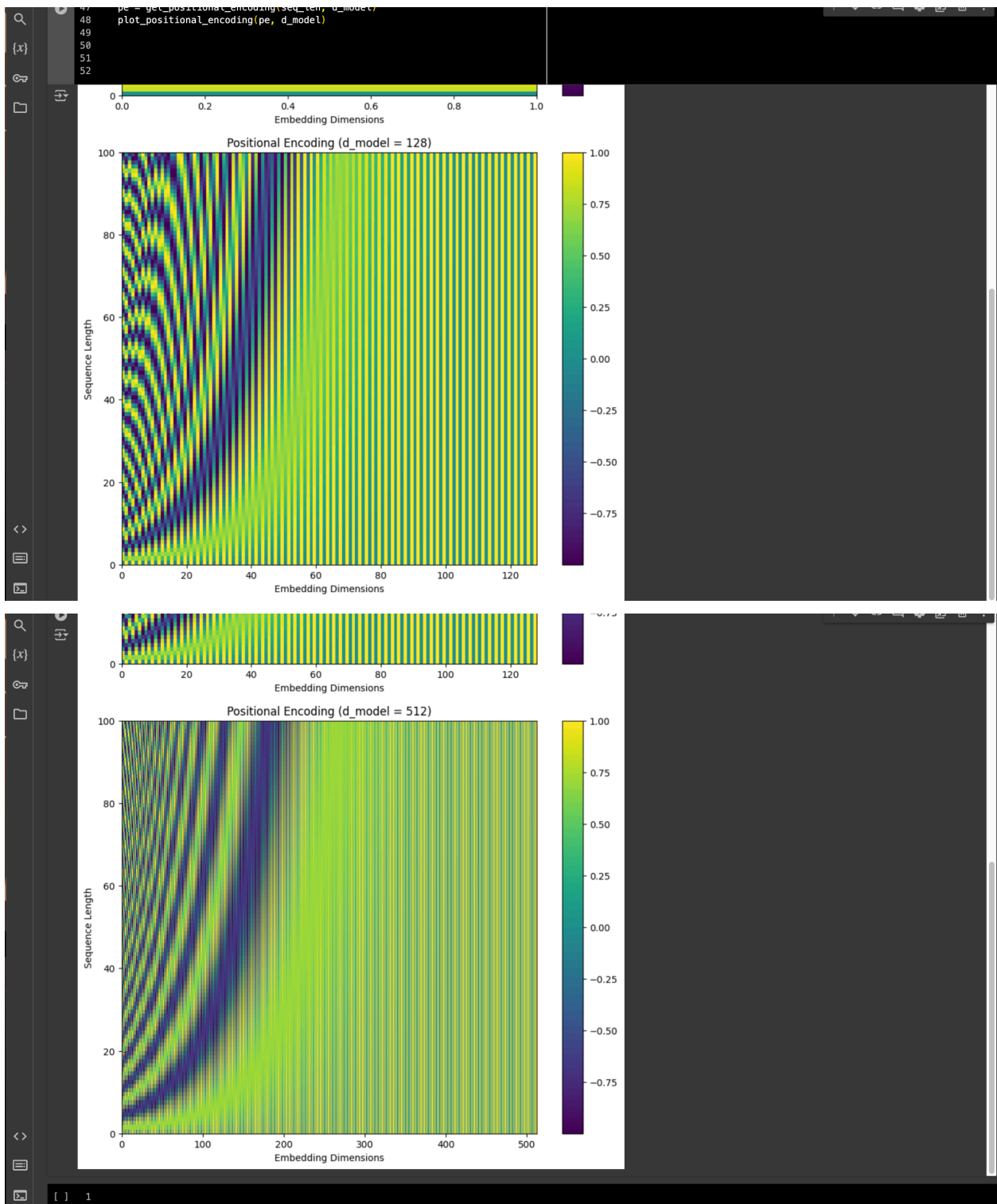
Question 2:

b. Implement Natural Language Generation (Any one of these category - Question Answering /Poem Creation/Story Writing/ Reading Comprehension/ Information Retrieval) using any transformer-based Foundation models (Any foundation model along with Lang chain and API can be used). (20 Marks = Coding and Complexity-10 Marks, Documentation – 5 Marks, Viva – 5 Marks)

Question 1:

a. Implement Positional Encoding (Sinusoidal Embedding with Cosine and Sine) with visualization of Dimensionality 1, 128 and 512. (10 Marks = Coding and Complexity- 5 Marks, Visualization – 3 Marks, Viva – 2 Marks)





this is the visualization of positional encoding, which are used in transformers model to provide information about the positions of tokens in a sequence. The function `get_positional_encoding` generates a matrix of shape  $(seq\_len, d\_model)$ , where each row corresponds to a position in the seq and each column corresponds to a dimension of the model. positional encoding is calculated using sine and cosine functions. the plot of positional encoding visualise these encodings as colour maps for different dimensionalities, and it provides information is embedded in the models.