

# RAG-BASED APPLICATION THAT ANSWERS QUESTION ABOUT YOURSELF

Approach:

- Data Used: Personal Resume in pdf format has been ingested
- OpenAI chats gpt 3.5 large language model and Open-AI embedding is used
- Resume in pdf format has an inherent layout **LLM Sherpa** library is used to get chunks of the same type together
- LLama-Index chat engine and query engine were used for Question answering(chat-engine) and follow-up question(query-engine as) respectively

## Follow-up Question functionality

- Did separate query to LLM with **higher temperature** (to generate creativity) for Follow-up question based upon the previous prompts [llama-index query engine was used

## Shortcomings in Follow Up Functionality

- Sometimes prompts are not questions like ['ok','good'] In this case we don't want to generate follow-up questions
- It just takes previous prompt to generate follow-up question. No chat-history were used to build/generate follow-up questions
- Only one follow-up question is generated right now

Chunking results via LLM sherpa library for yash resume below is my resume and chunks generated

# YASH ANCHALIYA

ACADEMIC PROFILE			
Degree/Certificate	Institution	Percentage/CGPA	Year
IDD	Bio-Medical Engineering IIT (BHU), Varanasi	8.30	2024
CBSE (XII)	GURU SIDDHARTH INT SCHOOL BEAWAR	88.200	2018
CBSE (X)	ST PAUL'S SR SEC SCHOOL BEAWAR	91.200	2016
SKILLS			
<ul style="list-style-type: none"><li>• <b>Language</b> - C++, Python.</li><li>• <b>Technologies</b> - Numpy, Pandas, OpenCV, Sklearn, Matplotlib, Pytorch, Keras, Tensorflow, Git.</li><li>• <b>Interest</b> - DSA, Machine Learning, Deep Learning, Computer Vision, Generative AI, NLP, Statistics, OOPS.</li></ul>			
INTERNSHIP/TRAINING			
<b>Data Science Intern   Walmart</b>		May 2023 - July 2023	
Automated Creative Generation using Generative AI			
<ul style="list-style-type: none"><li>• Worked in <b>Generative AI</b> Advertising Tech team to build<b>automated creatives</b> for advertisers using <b>Stable Diffusion</b>.</li><li>• Created whole pipeline for Automated Creative Generation from scratch using<b>Open Source Stable Diffusion API</b></li><li>• Assessed <b>Background-Removal Algorithms</b> for single product images with white background from Walmart's catalog.Evaluated heuristic methods ,<b>U2Net</b>,and SOTA segmentation algorithms(<b>Segment-Anything-Model</b>).</li><li>• Tested various <b>hypothesis</b> related to Product extension,placement ,Hyperparameters tuning and Segmentation</li><li>• <b>Exposure:</b> Image Processing   Segmentation   Stable Diffusion   Segment-Anything-Model   Open-CV   Python.</li></ul>			
<b>Product Management Intern   Frontrow</b>		15 May 2021 - 15 July 2021	
Frontrow : EdTech start-up for non academic courses like Singing ,Gaming ,Music			
<ul style="list-style-type: none"><li>• Analyzed <b>conversion funnel</b> data to uncover <b>drop-off</b> and <b>retention rates</b>, and performed <b>Cohort analysis</b>.</li><li>• Boosted Challenge tab <b>conversion</b> by leveraging <b>data analysis</b> through CleverTap and Metabase</li></ul>			

```
for chunk in doc.chunks():
    print(chunk.to_context_text())
    print("-----")
    print("#####")
```

YASH ANCHALIYA ACADEMIC PROFILE

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SKILLS

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INTERNSHIP/TRAINING > May 2023 - July 2023Data Science Intern | Walmart

Automated Creative Generation using Generative AI Worked in Generative AI Advertising Tech team to build automated creatives for advertisers using Stable Diffusion.

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INTERNSHIP/TRAINING > May 2023 - July 2023Data Science Intern | Walmart

Created whole pipeline for Automated Creative Generation from scratch using Open Source Stable Diffusion API.

Assessed Background-Removal Algorithms for single product images with white background from Walmart's catalog.Evaluated heuristic methods ,U2Net,and SOTA segmentation algorithms(Segment-Anything-Model).

Tested various hypothesis related to Product extension,placement ,Hyperparameters tuning and Segmentation Exposure: Image Processing | Segmentation | Stable Diffusion | Segment-Anything-Model | Open-CV | Python.

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INTERNSHIP/TRAINING > May 2023 - July 2023Data Science Intern | Walmart

Frontrow : EdTech start-up for non academic courses like Singing ,Gaming ,Music Analyzed conversion funnel data to uncover drop-off and retention rates, and performed Cohort analysis.

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## Streamlit-Application for answers and follow-up question[results screenshots]



What is the duration of internship at Walmart?



The internship at Walmart took place from May 2023 to July 2023.

What specific methods or techniques were utilized to assess background-removal algorithms for single product images during the internship at Walmart?



Tell me Yash Walmart internship experience briefly?



Yash's internship experience at Walmart involved working on various projects related to data science and product management. He created a pipeline for Automated Creative Generation using Open Source Stable Diffusion API and assessed Background-Removal Algorithms for product images. Yash also boosted Challenge tab conversion by leveraging data analysis tools like CleverTap and Metabase. Additionally, he analyzed conversion funnel data for an EdTech startup called Frontrow. Overall, Yash gained experience in image processing, segmentation, data analysis, and product management during his internship at Walmart.

What specific tasks or projects did Yash work on during his internship at Walmart?



Tell me about Yash Anchaliya achievements?



Yash Anchaliya has achieved the following:

1. Selected among the top 2% out of 4.5L+ candidates across India in Embark'21 conducted by Upraised.
2. Solved over 1000 problems on various online judges like Leetcode and Codeforces.
3. Finalist in Data Science Hackathon Organized by Kharagpur Data Analytics Group IIT Kharagpur.

What competitions or events has Yash Anchaliya participated in to showcase his skills and expertise?



What was the purpose of the Character Level Language Model that Yash Anchaliya worked on from August 2022 to September 2022?



The purpose of the Character Level Language Model that Yash Anchaliya worked on from August 2022 to September 2022 was to generate names using Counting and Multi-Layer Perceptron. The model was trained on a dataset consisting of 32k names, where the training data used the previous 3 characters to predict the next character. Additionally, Yash also worked on an automatic differentiation engine similar to PyTorch Autograd built from scratch in Python using object-oriented programming principles during the same period.

What type of neural network architecture was utilized in the Character Level Language Model project that Yash Anchaliya worked on from August 2022 to September 2022?



give a glimpse of Yash Anchaliya academic experience?



Yash Anchaliya has a strong academic background with notable achievements. He is currently pursuing IDD in Bio-Medical Engineering at IIT (BHU), Varanasi, with an impressive CGPA of 8.30. In his CBSE (XII) exams, he scored 88.200% from GURU SIDDHARTH INT SCHOOL BEAWAR in 2018, and in CBSE (X) exams, he scored 91.200% from ST PAUL'S SR SEC SCHOOL BEAWAR in 2016. Yash has also excelled in various competitions and hackathons, showcasing his skills and dedication to his field.

What other notable competitions or challenges has Yash Anchaliya participated in to showcase their academic experience further?