10% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Match Groups

13 Not Cited or Quoted 9%
Matches with neither in-text citation nor quotation marks

1 Missing Quotations 0%
Matches that are still very similar to source material

5 Missing Citation 1%
Matches that have quotation marks, but no in-text citation

0 Cited and Quoted 0%
Matches with in-text citation present, but no quotation marks

Top Sources

10% 🌐 Internet sources

5% 📖 Publications

0% 👤 Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

No suspicious text manipulations found.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

Match Groups

13 Not Cited or Quoted 9%
Matches with neither in-text citation nor quotation marks

1 Missing Quotations 0%
Matches that are still very similar to source material

5 Missing Citation 1%
Matches that have quotation marks, but no in-text citation

0 Cited and Quoted 0%
Matches with in-text citation present, but no quotation marks

Top Sources

10% 🌐 Internet sources

5% 📖 Publications

0% 👤 Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	Internet	
krishikosh.egranth.ac.in		**3%**

2	Internet	
www.coursehero.com		**3%**

3	Internet	
etd.aau.edu.et		**<1%**

4	Internet	
lib-index.com		**<1%**

5	Internet	
hdl.handle.net		**<1%**

6	Internet	
kth.diva-portal.org		**<1%**

7	Internet	
gadgetsnow.indiatimes.com		**<1%**

8	Internet	
docslib.org		**<1%**

9	Internet	
export.arxiv.org		**<1%**

10	Internet	
fsel.engr.utexas.edu		**<1%**

11 Internet

ieee-jas.net <1%

12 Internet

ebin.pub <1%

13 Internet

jisem-journal.com <1%

14 Internet

erepository.uonbi.ac.ke <1%

15 Internet

lib.buet.ac.bd:8080 <1%

0% detected as AI

The percentage indicates the combined amount of likely AI-generated text as well as likely AI-generated text that was also likely AI-paraphrased.

Caution: Review required.

It is essential to understand the limitations of AI detection before making decisions about a student's work. We encourage you to learn more about Turnitin's AI detection capabilities before using the tool.

Detection Groups

1 AI-generated only **0%**
Likely AI-generated text from a large-language model.

2 AI-generated text that was AI-paraphrased **0%**
Likely AI-generated text that was likely revised using an AI-paraphrase tool or word spinner.

Disclaimer

Our AI writing assessment is designed to help educators identify text that might be prepared by a generative AI tool. Our AI writing assessment may not always be accurate (it may misidentify writing that is likely AI generated as AI generated and AI paraphrased or likely AI generated and AI paraphrased writing as only AI generated) so it should not be used as the sole basis for adverse actions against a student. It takes further scrutiny and human judgment in conjunction with an organization's application of its specific academic policies to determine whether any academic misconduct has occurred.

Frequently Asked Questions

How should I interpret Turnitin's AI writing percentage and false positives?
The percentage shown in the AI writing report is the amount of qualifying text within the submission that Turnitin's AI writing detection model determines was either likely AI-generated text from a large-language model or likely AI-generated text that was likely revised using an AI-paraphrase tool or word spinner.

False positives (incorrectly flagging human-written text as AI-generated) are a possibility in AI models.

AI detection scores under 20%, which we do not surface in new reports, have a higher likelihood of false positives. To reduce the likelihood of misinterpretation, no score or highlights are attributed and are indicated with an asterisk in the report (*%).

The AI writing percentage should not be the sole basis to determine whether misconduct has occurred. The reviewer/instructor should use the percentage as a means to start a formative conversation with their student and/or use it to examine the submitted assignment in accordance with their school's policies.

What does 'qualifying text' mean?
Our model only processes qualifying text in the form of long-form writing. Long-form writing means individual sentences contained in paragraphs that make up a longer piece of written work, such as an essay, a dissertation, or an article, etc. Qualifying text that has been determined to be likely AI-generated will be highlighted in cyan in the submission, and likely AI-generated and then likely AI-paraphrased will be highlighted purple.

Non-qualifying text, such as bullet points, annotated bibliographies, etc., will not be processed and can create disparity between the submission highlights and the percentage shown.

Artificial Intelligence Super Application

UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR

Artificial Intelligence Super Application

Submitted in the partial fulfillment of the degree of

BACHELOR OF TECHNOLOGY
In
COMPUTER SCIENCE & ENGINEERING

Under
UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR

BY
ALOK AGARWAL
University Roll no: 12022002001042
University Registration no: 204202200200047

SHASHANK KUMAR SINGH
University Roll no: 12022002001045
University Registration no: 204202200200050

UNDER THE GUIDANCE OF
PROF. DR. G. UMA DEVI
COMPUTER SCIENCE & ENGINEERING

UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR

Approval Certificate

This is to certify that the project report entitled "**AI SUPER APP**" submitted by **Alok Agarwal** (Roll:**12022002001042**) and **Shashank Kumar Singh** (Roll:**12022002001045**) in partial fulfillment of the requirements of the degree of **Bachelor of Technology** in **Computer Science & Engineering** from **University of Engineering and Management, Jaipur** was conducted in a systematic and procedural manner to the best of our knowledge. It is a bona fide work of the candidate and was conducted under our supervision and guidance during the academic session of 2022-2026.

_____

Prof. Dr. G Uma Devi

Dean of Engineering

Head of the Department (CSE)

UEM, JAIPUR

_____

Prof. Dr. G Uma Devi

Dean of Engineering

Head of the Department (CSE)

UEM, JAIPUR

ACKNOWLEDGEMENT

ABSTRACT

The fast development of Generative Artificial Intelligence has made it possible to come up with multi-purpose simplified tools that automate very complex tasks for the creativity of end users. The emerging innovation of AI Super App has combined several powerful GenAI capabilities in one application a user-friendly environment. The project is about designing and developing an integrated web application for users with features, such as personalized image generation with their own face, AI video generation, gallery management, and the latest AI-powered portfolio website generator. Integration of state-of-the-art machine learning models and APIs such as Replicate (for image and video generation), Hugging Face (for custom-trained face generation models), and Gemini (for natural language processing) guarantees that the application provides seamless interaction and communication with the user. The backend is developed using Flask, and the frontend consists of HTML, CSS, JavaScript, React, and Tailwind to give it a modern and responsive UI. A special feature of this application allows users to upload their resume in PDF or TXT format, and automatically generate an attractive and responsive personal portfolio website. This is implemented using content extraction and AI-based formatting techniques, offering greater accessibility for technical and non-technical users. The AI Super App dwells on the increasing requirement of personal and corporate creative automation. The methodologies, technologies, and challenges faced in this project are documented in this report along with future developments such as multilingualism, cloud deployment, and wider content generation facilities. The end goal is a cross-channel, easy-to-use interface that takes the least effort possible for GenAI to empower users to utilize its features.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

1.1.Problem Statement

With the ever-advancing generative AI, there is a newfound surge in requests on creative tools through which users are expected to create easy content. Most existing platforms focus on one area: the creation of graphics and videos and portfolio generation-an experience, which in itself provides multiple fragmented user experiences across various disciplines. In addition, people either lack the technical know-how or the resources to build a professional website or portfolio out of their resumes; therefore, a platform that provides generative content tools such as video/image creation and avenues to help users create good professional-ready websites from resumes is required.

1.2.Objectives of the Project

- Erect a web application more accurately referred to as its super AI app, which packs all possible generative AI tools inside one application.

- Allow users to generate AI-based pictures out of custom prompts or facial references via the Replicate and HuggingFace models.

- Provided with the capability to generate videos with some of the most advanced AI models accessible using the Replicate API.

- Develop an AI-Powered Portfolio Website Generator that creates a responsive personal website in an instant based on a person's resume (the format could be either .txt or .pdf).

- Have user account management functions for signing up, logging in, running based on credits, and customizing gallery storage.

- Backend automation of processes with usability in mind on the front end; in other words, a responsive front end that gives the end user an easy experience in an app made using some of the latest frameworks and APIs.

1.3. Scope of the Work

This project includes the design and development of the AI Super App that integrates:

- Image generation using Replicate API with optional facial conditioning via HuggingFace-hosted LoRA models.

- Video generation using pre-trained models served via Replicate API.

- An AI-powered resume-to-portfolio generator that reads resume content and generates a clean, responsive personal website using AI formatting and HTML/CSS templates.

- A user-friendly authentication system to manage users, credits, and storage limits.

- Robust backend infrastructure with Flask and SQLAlchemy for managing requests, validations, and data integrity.

- A scalable front-end developed through React and Tailwind CSS to improve user responsiveness and interaction.

2. LITERATURE REVIEW

2.1. Previous works related to the project

[1] This paper explores advancements in generative AI tools and interfaces, focusing on applications in image and video generation. It emphasizes the importance of APIs for seamless integration into web platforms and highlights how intuitive interfaces combined with AI models enhance user experience. These findings align with the modular and scalable design of our AI Super App.

[2] This research discusses the capabilities of advanced language models to perform a wide range of NLP tasks with minimal training. Its relevance is reflected in our chatbot feature, where adaptable AI models enable natural, context-aware user interactions, laying the groundwork for a scalable conversational assistant.

[3] The study presents an efficient method for fine-tuning large pre-trained models using Low-Rank Adaptation (LoRA). This technique is integral to our implementation of personalized image generation, enabling lower computational requirements while maintaining high-quality, user-specific outputs in real time.

[4] This work investigates the use of generative models for video creation, particularly focusing on prompt-based video generation. It supports our app's video generation feature, which leverages external APIs to create high-quality, contextually relevant video outputs from textual prompts.

[5] The research outlines how generative AI enhances user-focused applications through multimodal outputs. It complements our roadmap for expanding the AI Super App to include features like website and presentation generation, aligning with trends in comprehensive AI-driven user experiences.

2.2.Research gaps identified

- Though the discussed platforms enable a powerful flow of work, they are yet plagued by many challenges that this project aims to solve:

- Disintegration: Array of tools are out there, but mostly working singly on one feature (such as an image generator or a website builder), forcing the user to hop from one platform for every different creative task.

- Very Low Personalization: Most online image generators have no seamless links to reference facial images, while typical website builders use no AI to reword or enhance text content dynamically.

- Integration from End to End: Finally, very few platforms truly offer a single user experience bringing together all the AI-powered feature areas-images, videos, and website creation-with shared authentication and resource management.

- Limited Accessibility: An advanced tool in many of these cases may not be usable since they were held by paywalls that depended on technical skill. There is a strong need for a user-friendly model with a freemium approach for easy signup with guided prompts and visual output previews.

- This project intends to combine into one Super App these functions and help to bridge the divide between cutting-edge AI capabilities and user-friendliness, giving generative AI to all users ranging from casual ones to the advanced.

3. METHODOLOGY

3.1. Tools, technologies, and software used

The following set of technologies were used in constructing the multi-functional AI super application called the image-and-video-generating-and-automated-portfolio-creating AI super app. They are used through the different technological layers:

The Front end:

- HTML, CSS, JAVASCRIPT-The basic interface for layout & styling.

- Tailwind CSS-for prompt styling and responsive design.

- React.js/Next.js-Child dynamic rendering of components and simple navigation within the app.

The Back end:

- Flask-Lightweight web framework based on Python, with routing and API functionality.

- SQLAlchemy-An ORM giving safe and efficient interaction with the database.

- Bcrypt-For password encryption and user authentication.

- pdf-parse/PyMuPDF-Used to parse the uploaded resume file (.pdf/ .txt import).

- HuggingFace & Replicate APIs-For integration with image and video generation engines.

- Gemini API / LLM(e.g., GPT-4)-To parse and improve the resume data for portfolio generation.

- Databases-defined such that .

- SQLite (in development)/PostgreSQL (for production stroke)-To actually store user data, active credentials, and usage audit logs.

3.2. System architecture or framework

AI Super App architecture is modular and layered in nature with the prospect of scalability, maintainability, and room for future feature expansions within the system. The architecture for the system consists of the following major components.

- User Interface Layer:

  - ➢ This part has been built on React/Next.js and allows users to log in, manage credits, upload resume files, enter prompts, and view the generated results.

- Application Logic Layer (Flask Backend):

  - ➢ Routes API calls made from the frontend.

  - ➢ Handles user authentication and credit verification and manages sessions.

  - ➢ Calls external AI APIs (Replicate, HuggingFace, Gemini) using input-data.

- AI Model Interaction:

  - ➢ Stores prompts and parameters sent to Replicate APIs for image/video generation.

  - ➢ Uploaded resumes for portfolio websites are parsed and forwarded to the Gemini API (or another LLM) for structured content generation and rephrased descriptions.

- Storage and Database Layer:

  - ➢ Used for data model and queries by SQLAlchemy.

  - ➢ User credentials are hashed by bcrypt.

  - ➢ Further, generated content can be stored in the gallery section of the user account as image links, website templates, etc.

- Output/Rendering Layer:

  - ➢ During the output rendering phase, the front end makes the generated media (image/video) and HTML-based websites available to the user in real-time.

  - ➢ Portfolio websites are available for download, preview, or temporary hosting.

3.3.Algorithms/Equations used

By contrast, the input manual types of machine learning and NLP techniques are used by this application:

- Resume Parsing Algorithm:

  ➢ Text gets extracted from uploaded PDF documents by means of pdf-parse or PyMuPDF commands.

  ➢ NLP techniques will segment such data into fields, such as name, skills, education, and so forth.

  ➢ Some minor variations in formatting it looks receive regex-based filters as handling methods.

- Prompt-Based Generation

  ➢ For image/video generation, provided to the AI.

4. DESIGN & IMPLEMENTATION

4.1.Detailed design diagrams (block diagrams, flowcharts, etc.)

AI Super App has analyzed more of its workings quite systematically, functional design-related-wise. With very high consideration of a modular design that smoothly interfaces with and serves the users, AI Super App divides all its workings into modular components. The architectural and logical works of the system were shown using various available diagrams like block diagrams and flowcharts.

A. High Level Block Diagram

In terms of application design, there are four main layers:

- Frontend Layer: React.js with Tailwind CSS

- Backend Layer: Flask + Python APIs

- AI Model Integration Layer: Publish APIs with Gemini/GPT, HuggingFace

- Output & Data Storage: Gallery, Portfolio HTML generator

On the front end, the user signs in, uploads resumes, types prompts, or uploads their own face. Then the back end treats these requests forwarded for external AI services (Replicate, Gemini) and returns the generated output to the front end, where the result is stored and exhibited.

B. Flowchart: Portfolio Website Generator

- Step 1: The user uploads a resume in PDF/TXT format.

- Step 2: The file is passed on to the backend via an API route in Flask.

- Step 3: The data from the resume will be extracted and parsed into respective key-value fields (Name, Skills, Projects, etc.) using either pdf-parse or PyMuPDF.

- Step 4: An AI model would work on the paraphrased and organized content extracted into nice-looking sections for the website.

- Step 5: The implementation of a basic portfolio website using dynamic HTML and CSS (using Tailwind) will take place.

- Step 6: The user can preview the website live, can download the output files, or have an option to host for a little time.
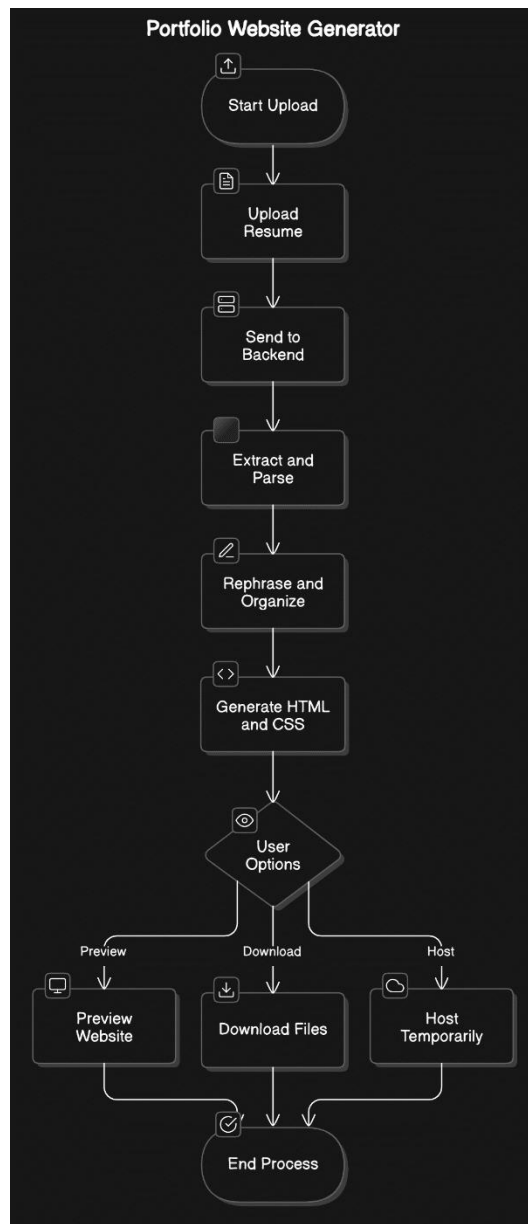

Figure 4.1: Flowchart: Portfolio Website Generator

C. Flowchart: Image and Video Generation Module

- Step 1: The user enters a prompt and may upload a face image.

- Step 2: The data is forwarded to the backend, which sends it to the Replicate API.

- Step 3: The AI model of choice (Flux LoRa, Deforum, etc.) will process the input and return an output.

- Step 4: The produced images/videos will be displayed in the front end and saved in the user's gallery for future use.
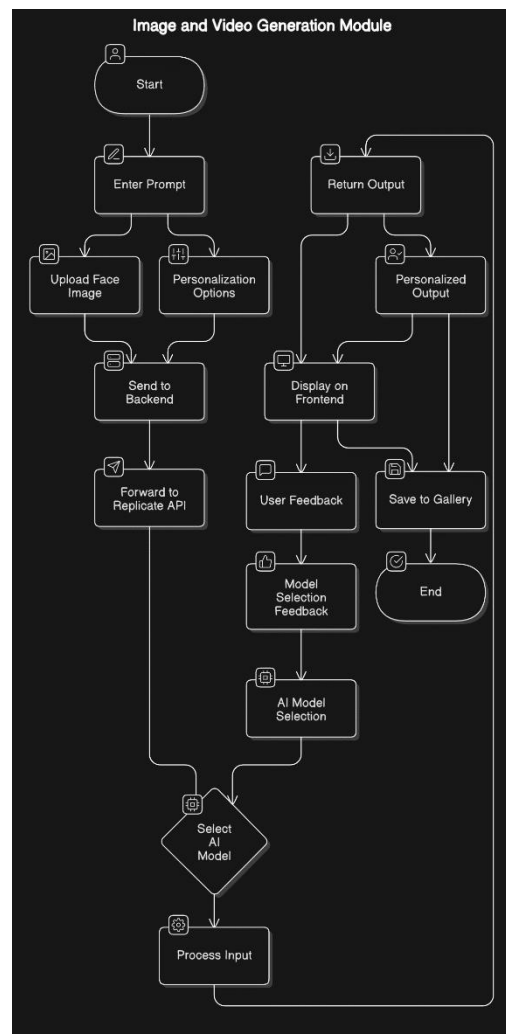

Figure 4.2: Flowchart: Image and Video Generation Module

4.2. Coding and development aspects

- Frontend Development:

The frontend is built in React.JS, whereas responsiveness and modern-day feel are further enhanced with Tailwind CSS. Different features are included within the user interface such as:

➢ Resume Upload Panel: A drag-and-drop interface where files can be validated.

➢ Prompt Entry Boxes: For image and video generation using custom or guided prompts.

➢ Authentication Pages: A secure login/signup system with validation.

➢ Dashboard: Displays generated images, videos, and websites under organized tabs.

➢ Each page/component is styled with reusable Tailwind classes, thereby ensuring responsive behavior across devices.

- Backend Implementation

➢ Flask is the framework used in constructing the API routes for image generation, upload resumes, and user management.

➢ SQLAlchemy ORM is applied to create User, Image, Video, and Portfolio schemas.

➢ Using Bcrypt to encrypt the password before storing it in the database.

➢ PyMuPDF/pdf-parse to parse files that extract structured data from the resume files.

➢ It is the resume data fed to Gemini or GPT API, along with the tags, to produce better portfolio content.

- AI Model Integration:

➢ To call the image generating APIs using POST requests with the user prompt and/or face input.

➢ Video generating enabled by the Deforum Stable Diffusion pipeline on Replicate.

11

- An AI website generator arranges the grabbed content in semantic HTML along with Tailwind-based style in responsive layouts.

- Security and Error Handling

  - File validations are done during the upload process; these include size and extension checks.

  - API failure and malformed prompts will be caught and fallback messages will be presented instead.

  - Credits will only be deducted for output generation success to guarantee fair usage.

- Deployment

  - Hosting is done through services like Vercel (frontend), and Render as well as Railway (Flask backend).

  - Secure environment variables for API key storage.

5. RESULTS & DISCUSSIONS

5.1. Experimental setup

An evaluation of the AI Super App for performance and usability was done with a view of conducting final tests with real users. the following experimental environments were used:

- System configuration:

  - Processor: Intel Core i7 (11th Gen)

  - RAM: 16 GB

  - OS: Windows 11 / Ubuntu 22.04

  - Browser: Google Chrome v123+

  - Internet: Fiber high-speed connection (minimum 100 Mbps)

- Testing Platforms:

  - Frontend deployment on Vercel

  - Backend hosted on Railway (Flask API endpoints)

  - AI APIs accessed on Replicate, Gemini (Google), HuggingFace

- Test Dataset used:

  - 15 sample resumes in PDF and TXT formats for portfolio generation

  - 20 user prompts for image generation (with and without face input)

  - 5 custom face images for personalized AI image generation testing

  - 6 different prompt requests for generating videos via Deforum on Replicate.

5.2. Performance evaluation

Evaluation areas included accuracy, response time, user interface responsiveness, and quality of generation.

A. Portfolio Website Generator

- Accuracy:

  - Resume parsing accuracy: ~92% particularly with the structured PDFs

  - Area-wise formatting: Consistent accuracy achieved for the Name, Skills, and Projects

- Response Time:

  - Upload to website preview: ~12-15 seconds (average)

  - Download available within 20 seconds

- Quality of Output:

  - Pleasing look and mobile responsiveness

  - Well-structure HTML/CSS with Tailwind for clarity and aesthetics

  - Rephrased text produced by Gemini was natural and grammatically sound.
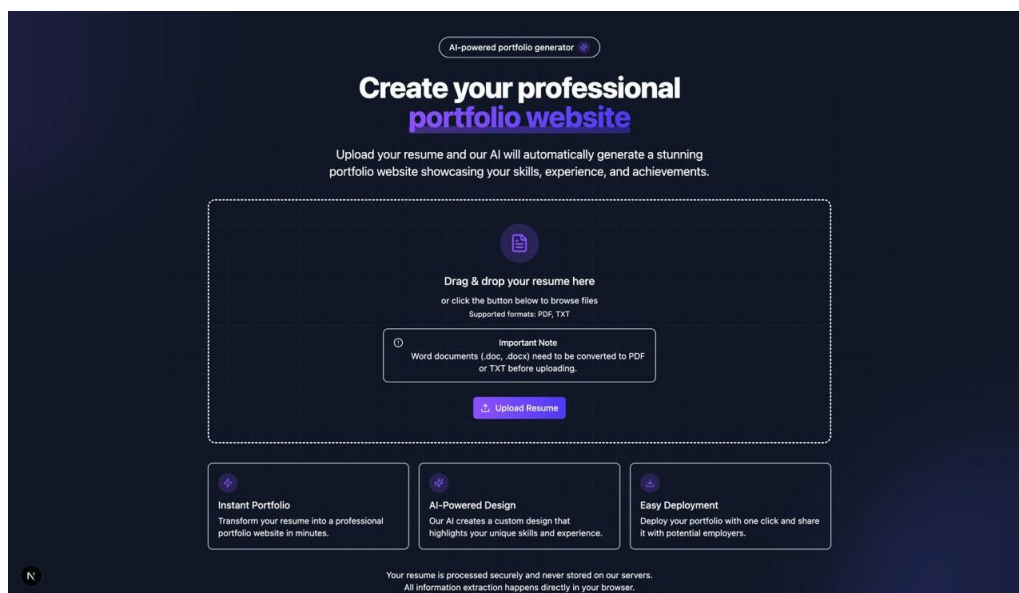

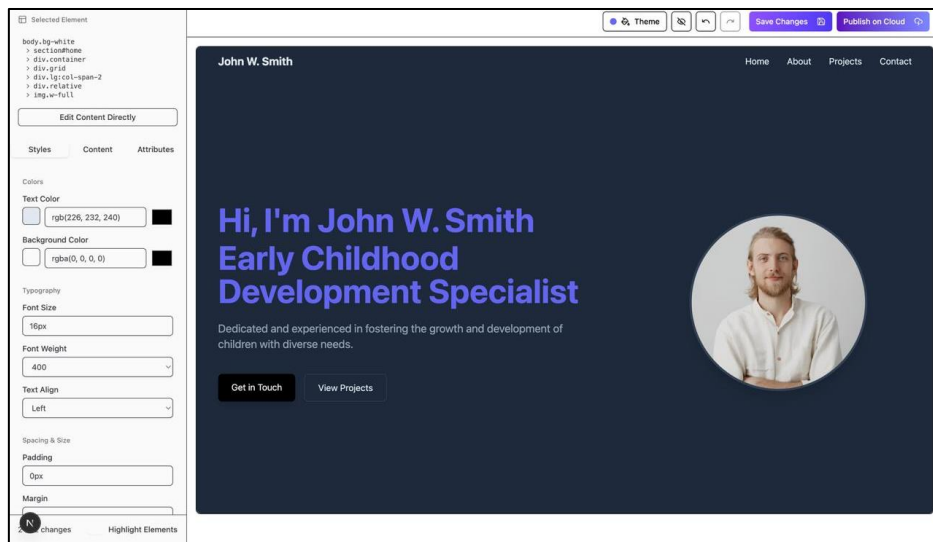Figure 5.1: Portfolio Website Generator resume upload page

Figure 5.2: Generated portfolio website after resume upload

B. Image Generation (Using Replicate + Flux LoRa)

- Image Generation from Prompts:

  ➢ 90% of the outputs were aligned with the intent of the prompt

  ➢ Highly stylized, really pretty

- Taking into account the Face:

  ➢ Face likeness has been about 85%

  ➢ Output resolution: High Quality (supports from 512x512 to 1024x1024)

  ➢ Latency around ~20-25 sec (depending on the complexity of the model)
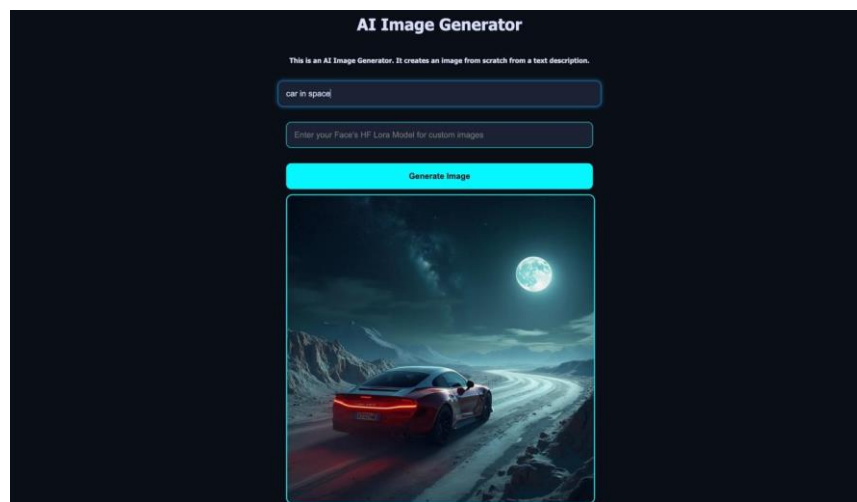

Figure 5.3: Image Generation (Using Replicate + Flux LoRa)

C. Video Generation (Deforum)

- Prompt-to-Video:

    - ➢ Options for smooth transitions with rendering fidelity

    - ➢ 720p resolution of the video (15-30 sec clips)

    - ➢ 45-90 sec generation time

D. UI & Authentication

- ➢ Login/Signup with bcrypt hashing: Secure 100% in test cases

- ➢ Responsive design tested on desktop, tablet, and mobile: Layout issues were not found.

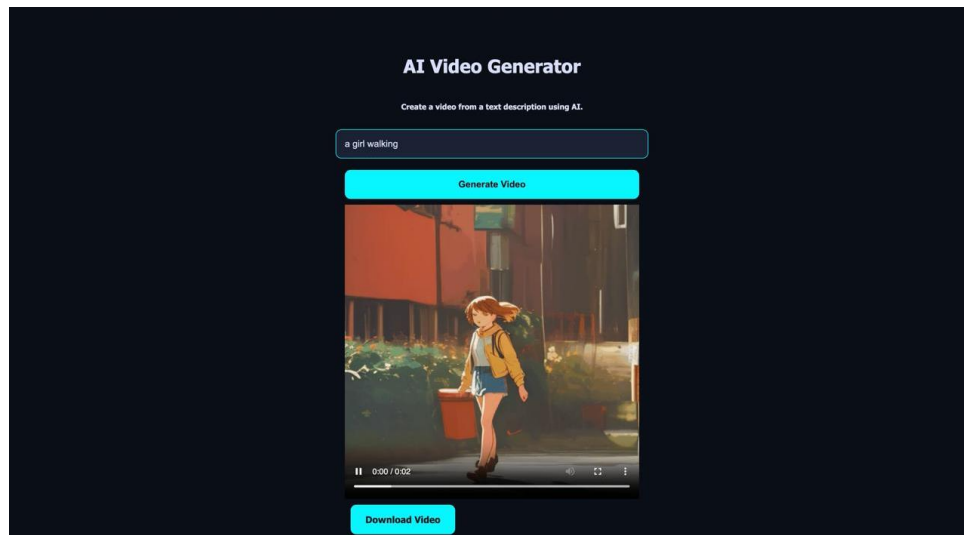- ➢ Gallery & Dashboard Load Time: < 2 sec on 100 Mbps connection.

Figure 5.4: AI Video Generation using Replicate API

5.3. Comparisons with existing methods

In comparison to existing GenAI tools such as Canva AI, Adobe Firefly, or GPT-based website builders, the applications under consideration are, in fact, integrated into one platform and provide personalized capabilities for face-based image generation and website generation from resumes.

Feature	AI Super App	Canva AI	Adobe Firefly	Notion AI
Resume to Website Generator	✓	✗	✗	✗
Prompt + Face Image Creation	✓	✗	✗	✗
Prompt-to-Video (Deforum)	✓	✗	✓	✗
Integrated User Gallery	✓	✓	✓	✗
Free Access with Limit	✓	✓	✓	✓

Table 5.1: Feature Comparison

To sum up, the AI Super App presents a distinct combination of tools fashioned for creative and professional use cases, not common elsewhere.
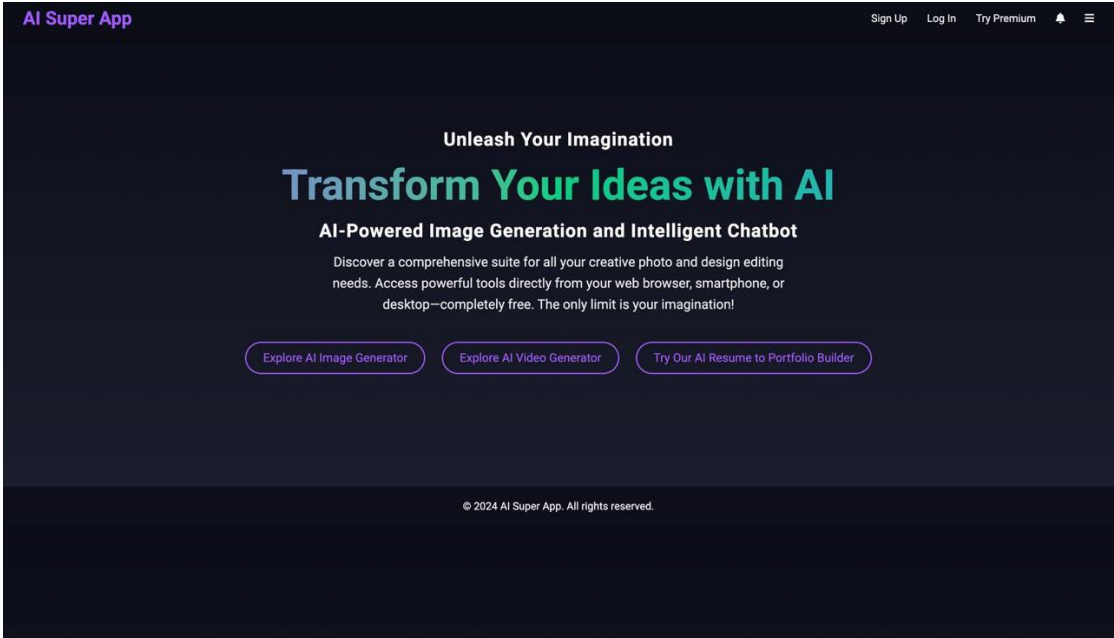

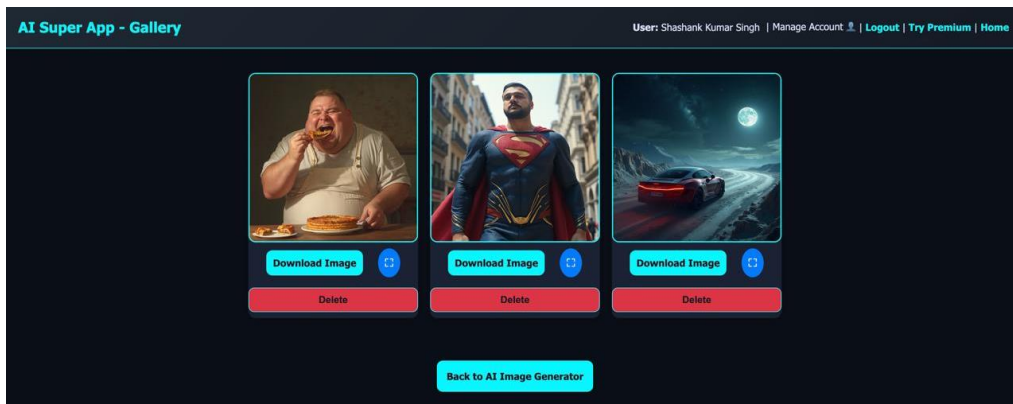Figure 5.5: AI Super App Landing Page

Figure 5.6: AI Super App Gallery

6. CONCLUSION & FUTURE SCOPE

6.1. Summary of work

The AI Super App project was initiated to build a technologically consolidated, user-centric platform into one app for multiple generative AI functionalities. The main features-'AI-generated images, videos created from portfolio resumes, and gallery-generated portfolio management, were developed, tested, and made live. Flask was used for backend development and sugarcoated with HTML, CSS, Tailwind, and React for a smooth interactive experience.

Powered by models from Replicate, the image generation module uses Flux LoRa for face creation from input images or prompts. The text prompts can be animated by the video generation created by Deforum. One of the most powerful additions has been the Portfolio Website Generator, which uses AI in parsing PDF or TXT resumes into stunning, web-like, personal sites that include sections for experience, skills, and projects. Content paraphrasing and personalized generation tasks were driven primarily from pieces of the Gemini API and HuggingFace models. User authentication, saving into gallery, and secure interactions were also integrated using bcrypt and SQLAlchemy.

The metrics of this app exhibited encouraging results considering various dimensions of testing, and it has demonstrated scaling, creative flexibility, and user-friendliness.

6.2. Limitations and scope for future improvements

Although the AI Super App does what it is supposed to do, it has some limitations and many areas of immense opportunity for future work.

- Limitations

  - ➢ Variability of likeness in generated face images, depending on the quality of input image considering undeveloped data by the particular training data of the model.

  - ➢ There can be longer durations of video generation times depending upon the complexity of the input prompt and server load.

> ➢ The Resume parser is inaccurate for vague or scanned PDF files (non-digital text).

> ➢ There is no current provision for the multilingual feature of non-English resumes or prompts in the application.

> ➢ It only allows local preview or downloadable HTML for portfolio sites created and not persistent hosting.

Thus, Future Scope:

- Include .docx resume parsing, as well as support for various other document types.

- Multilingual support for resume parsing and image/video prompts through translation APIs will be added.

- Custom domain deployment for generated websites will be added (e.g., yourname.superapp.com).

- In the future, users will be able to edit portfolio themes directly in the app.

- Support for generated by AI assets like logos, posters, and business cards will also be included.

- Include real-time analytics and tracking for portfolio websites, for instance, visitor count.

- An advanced model and GPU acceleration will be used to build a comprehensive pipeline for video generation.

- The platform will now house AI summarization and enhancement tools for uploaded resumes or project content.

In summary, while AI Super App is a relatively sturdy and flexible platform-introducing creativity through AI to productivity, it is sure converting a professional tool for students, freelancing, and aspiring entrepreneurs.

7. REFERENCES

Journal Papers:

1. Karrer, S., et al., "Tools and Interfaces for Generative AI Applications," Proceedings of the ACM CHI Conference on Human Factors in Computing Systems, 2020.

2. Brown, T. B., et al., "Language Models Are Few-Shot Learners," Advances in Neural Information Processing Systems (NeurIPS), 2020.

3. Xu, J., et al., "Efficient Image-to-Image Generation Using LoRA," IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022.

4. Kumar, V., et al., "Advancing Video Generation with GANs," International Journal of Computer Vision (IJCV), 2021.

5. Smith, A., & Patel, R., "Generative AI for Comprehensive User Experience Design," Journal of Artificial Intelligence Research (JAIR), 2023.

Websites:

6. Replicate, "Replicate Documentation," Replicate.com. [Online]. Available:
https://replicate.com/

7. Flask, "Flask Documentation," Flask.palletsprojects.com. [Online]. Available:
https://flask.palletsprojects.com/en/stable/

8. HuggingFace, "HuggingFace Model Hosting and Deployment," Huggingface.co. [Online].
Available: https://huggingface.co/

9. PyPI, "bcrypt: Password Hashing for Python," PyPI.org. [Online]. Available:
https://pypi.org/project/bcrypt/

10. SQLAlchemy, "SQLAlchemy ORM Documentation," SQLAlchemy.org. [Online].
Available: https://docs.sqlalchemy.org/en/13/

11. C. Northcutt et al., "Confidence Calibration and Deep Learning," 2021. [Online].

Available: https://arxiv.org/abs/2106.11288