

An Internship Report On Animation and Software Development

by

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20241005

A Internship submitted to the Department of Computer Science and Engineering
in partial fulfillment of the requirements for the degree of
B.Sc. in Computer Science

Department of Computer Science and Engineering
Brac University
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Declaration

It is hereby declared that

1. The internship submitted is my/our own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/we have acknowledged all main sources of help.

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Approval

The internship titled Animation and Software Intern of Techno Magic Private Ltd. submitted by

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Of Summer, 2025 has been accepted as satisfactory in partial fulfillment of the requirement for the degree of B.Sc. in Computer Science on October 11, 2025.

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Ethics Statement

The highest rules of ethics, which include maintaining confidentiality and carrying out all responsibilities with integrity, have guided me during this internship. I produced original material that was truthful and compliant with the organization's policies and the law. To make sure that my actions always reflected positively on the company and on myself, I kept clear of any conflicts of interest and handled clients and coworkers with professionalism and respect.

Executive Summary

I completed my internship at TechnoMagic Private Limited, an emerging IT solutions organization in Dhaka, Bangladesh. The company mostly specializes in software development, animation, and game development. Acquired hands-on experience on real projects along with animation principles and project management. This internship at TechnoMagic Company gave me an excellent grasp of animation-level operations, enabling me to experiment with fundamental approaches in motion design, character movement, and visual narrative.

This work experience helped me realize my newly found interest in the technical parts of animation as well as digital marketing, which drove me to learn more about the area. While I initially concentrated on learning the fundamentals, my internship acted as a springboard, providing me with a solid foundation in animation concepts as well as an awareness of the creative and technical collaboration necessary in the business. This internship experience not only taught me the very foundations of animation but also expanded my knowledge of how animation works with technology-driven solutions.

Acknowledgement

First and foremost, I thank Allah (SWT) for granting me the strength, patience, and wisdom to complete this internship. Without His blessings, this journey would not have been possible. My sincere thanks to my friends, family, and teachers who supported me wholeheartedly and always stayed close to me with best wishes. Next, I want to express my sincere thanks to Mr. Rafeed Rahman, a lecturer at BRAC University and my supervisor, for helping me with the composition of this internship report. Without his help, this report would not have been possible to write. Additionally, I want to express my sincere gratitude to everyone at TechnoMagic Private Ltd. for giving me an amazing experience opportunity and to all the wonderful individuals who oversaw my internship.

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Chapter 1

Overview of Internship

This internship report presents an overview of my overwhelming internship experience at TechnoMagic Private Limited, one of the emerging Information technology solutions firms in Dhaka, Bangladesh. The company is widely involved in numerous sectors, such as VR solutions, software development, animation, and high-level game development. During my internship, I was assigned to the animation and digital marketing departments, where I enhanced my technical skills and gained hands-on experience in the fast-paced sectors of animation and technology integration.

Throughout my internship at Technomagic, I was heavily exposed to the very creative and technical aspects of animation through the use of industry-standard software tools. My tasks were mostly assisting in creating visual materials, making powerpoint presentations and infographics, and studying motion design principles and character animation. I also assisted on projects combining animation with emerging technology, particularly in AI-driven digital marketing solutions.

This internship experience not only helped bridge the gap between theoretical education received at Brac University and its applications but also broadened my knowledge on how the work environment of a professional setup in the animation and IT sectors appears. The following sections of this report will demonstrate my job responsibilities, my deliverables in my internship experience, the problems faced, and what I have learned from those which will shape my future as an animator and technologist.

1.1 Student Information

Name:	Shaolin Mostafiz
ID:	20241005
Program:	Bachelor of Computer Science
Major:	Computer Science
Minor:	Business

Table 1.1: Student Information

1.2 Internship Information

1.2.1 Period, Company name, Department, Address:

Period:	August – December 2024
Company Name:	TechnoMagic Private Limited
Department:	Animation and Digital Marketing
Address:	Mohakhali Dohs

Table 1.2: Internship Information

1.2.2 Internship Company Supervisors:

Name:	Arif Mohammad
Position:	Sr. Software Engineer

Table 1.3: Internship Company Supervisors' Information

1.3 Job Responsibilities

The Intern position given to me came with responsibilities, and with the guidance of my HOD, I was able to meet all the tasks and deadlines. During my internship, I mostly worked in the animation department in learning, but these are some of my overall tasks :

- Make a PowerPoint presentation for every new client.
- Work on company Excel sheets and update necessary information.
- Assist the teams in better understanding and learning.
- Help in small animation works.
- List of work progress.
- Day-to-day operations support for the department.
- Encourage system monitoring and troubleshooting.
- Provide help and ideas on topics and projects I had ideas on.
- Maintain updates on system functioning and report any irregularities in the company.
- Take part in the testing and deployment of new technological solutions and learn how to fix certain problems.

1.4 Internship Outcome

My internship at TechnoMagic Private Limited was designed to provide me with hands-on experience with IT and animation, allowing me to bridge the gap between what I learned at BRAC University and how it is used in real life. This opportunity enabled me to obtain hands-on experience with animation techniques, industry-standard software tools, and project management tactics, all of which were new and difficult for my professional growth. Given the wide and ever-changing nature of animation, one of my key goals was to have a better knowledge of its underlying concepts, processes, and technical complexities so that I could better navigate future job options.

Beyond technical capabilities, I aimed to improve my interpersonal and collaborative skills by participating in diverse projects that needed excellent teamwork and communication. Understanding industrial processes and operational workflows in the IT and animation sectors was another critical goal, as it gave insights into industry best practices, production pipelines, and project execution plans.

Finally, the internship allowed me to develop my professional networking circle as I got to know many people, sought mentoring and advice from tech industry leaders, and acquired a very vital insight into my future career path. By immersing myself in this broad and very dynamic environment, which was overwhelming, thankfully, I was able to obtain a very clear and transparent understanding of the skills and knowledge necessary to flourish in animation and associated technology fields, as well as refine my long-term career goals.

1.5 Problems and difficulties faced during the internship

In the fast-evolving technological world, the future professional needs a judicious mix of academic input and field exposure. While higher education builds a strong foundation, it is short in providing hands-on experience in solving real-world problems, collaborative work in interdisciplinary teams, and the technical know-how associated with IT and animation fields.

The major problem that I faced during my work was, Since it was a whole new field for me, animations, I couldn't grasp or implement basic ideas about animation promptly. Timing, relaxing, and seamless transitions were first difficult to achieve due to the need for ongoing input and modifications. Furthermore, understanding the professional animation software was a significant challenge for me, as I had to learn keyframe-based animation methods, properly manage layers, and optimize rendering settings, which were new to me as I am still at the beginner level, all while

guaranteeing a fluid workflow.

Furthermore, time management became a crucial and most important factor as well. Not only did I have to balance learning new animation tools, as I am still relatively new to this field, but I also had to balance my approach with meeting project deadlines. Striking the appropriate balance between learning and execution requires strategic planning and prioritization. Despite the challenges I faced, the internship enabled me to gain valuable hands-on experience, develop essential technical skills, and enhance my problem-solving abilities, all of which will be invaluable in my future career. Assisting with the company projects of some very renowned corporations and cooperating with professionals allowed me to overcome all the challenges I was facing, improve my grasp of animation, and provide a solid platform for future professional development. This experience not only helped me bridge the gap I have been facing for a long time, which is between academic knowledge and practical application, but it also impacted my future career goals in animation and digital content development.

Chapter 2

Organizational Part

2.1 Introduction

TechnoMagic Private Limited is an emerging IT solutions organization that specializes in software development, game development, digital marketing, and animation. The company delivers highly innovative and customizable solutions and is growing toward highly effective and advanced results. TechnoMagic works in various sectors, but the company is interested in becoming more focused on the software development and game development sectors and becoming one of the top IT solutions in the future.

By developing advanced technological solutions combined with in-depth industry insight, the company makes sure the customers are getting high-level service with top-notch satisfactory results. At TechnoMagic, we are committed to providing innovative solutions and customer-customizable results.

2.2 Mission and Vision of the Company

At TechnoMagic, the mission of the company is to empower both innovation and creativity using immersive designs and cutting-edge, high-quality technology. The company specializes in software development, game development, digital marketing, animation, etc, so the goal is to deliver the most high-quality level solutions to the user. The company aims to meet all the customer requirements while upholding the highest quality of service as well as performance. Their objective is to establish a name in the technology sector, and they plan on doing that by converting their concepts into influential digital experiences.

2.3 Overview of my work : Work on the animation field - Canva and Blender

During my time on internship, I learned the fundamentals of two animation-based applications: Canva and Blender. For making presentation slides and all, Canva was the goto because I became familiar with basic design principles and animation techniques, for example, creating simple visuals using fun shapes, text, and images with simple transitions

Canva and Blender are both very feature-packed design software available online and serve different purposes. Canva is perfect for graphic design, digital marketing, and branding for an organization, etc. It will introduce the user to design basics, including layouts, color theory, typography, and visual hierarchy. You can utilize Canva to create social media graphics, business branding materials like logos and business cards, professional presentations, and marketing materials like posters, flyers, and newsletters. It also includes basic video editing as well as good designs without requiring any high-end technical skills.

Blender is a 3D modeling and animation software with high-end, elaborate visual production. It introduces you to 3D modeling, digital sculpting, texturing, and materials to allow you to breathe life into objects and characters. Blender also discusses rigging and animation to make the characters move, as well as lighting and rendering for photorealistic or stylized results. It also includes physics simulations like fire, water, and cloth, together with high-level compositing and visual effects for game and film production. Blender is best for designers and artists who wish to dive deeply into 3D creation, animation, and game asset development. Whereas Canva is great at creating quick and professional-level 2D designs, Blender offers endless possibilities in 3D world-building and animation.

I utilized Canva to create educational presentations, infographics, and digital marketing design that effectively conveyed vital concepts and needed information in my projects. The simplicity of Canva made it possible for me to achieve visuals of a professional standard without extensive graphic design knowledge. And Blender for professional-grade 3D modeling and rendering. This is one of those computer programs that enabled me to create complex, flowing images, and animations, giving my project more overall impact by making it creative and rich.

2.4 Challenges faced in the animation field

During my time at TechnoMagic Private Limited, I saw a lot of issues firsthand. I had a very rudimentary grasp of technology as well as project management, but I did not have any previous expertise working in a professional animation production setting. My academic background provided a solid foundation for planning and collaboratively working on projects, but technically, animation-based motion design, keyframing, and frame rate optimization were new to me. What's more, having the chance to work with industry-standard software and techniques required a steep learning curve because project contributions had to be as fast as technical abilities would permit.

Maintaining visual and technological uniformity was another difficulty I encountered. The animation has to be consistent with the company's identity and marketing objectives while still keeping an engaging and professional appearance. Achieving this balance required incremental changes based on comments from senior designers, which helped me fine-tune my approach.

Chapter 3

Project

3.1 Project Introduction

In pursuit of my professional growth and all the things I have learned slowly within the marketing and animation sectors so far it resulted in me being on the team; therefore, I am now engaged in client acquisition for Herlan’s innovative AI-driven beauty application. Using real-time picture capture technology, this facing-edge program analyzes a user’s facial characteristics and skin tone, recommending the most appropriate beauty items from Herlan’s catalog. This project corresponds with the increasing trend of personalized beauty products, using artificial intelligence and computer vision to improve the consumer experience.

3.2 Project Overview: AI app for makeup product finder

Computer-vision, machine learning, and augmented reality (AR)-based AI beauty makeup applications recognize a user’s face and identify suitable products through computer vision, machine learning, and augmented reality (AR). Once activated by the launch of the application and camera permission granted by the user, the AI will scan the face, skin texture, and color of the user in real-time. Advanced picture recognition technology searches for information on blemishes, undertones, and the symmetry of a face in the interest of offering accurate suggestions.

Once the AI scans the face, it suggests suitable makeup products such as foundation shades, lipstick colors, eyeshadow colors, and contouring items. Mostly, similar apps use massive databases of cosmetic products of all the available brands and colors to determine the skin tone of the user precisely. Some AI models also take lighting conditions into account and adjust recommendations to make them precise.

Apart from product recommendations, these AI apps offer virtual try-on capabilities through the assistance of AR. The users can, therefore, imagine how different

makeup products would look on their face before they purchase. The app overlays virtual makeup in real-time, allowing users to experiment with different shades and styles without applying the products. This app will also offer links to purchase the suggested products directly from Herlan Bd as well as their sister concern group, Lily, hence simplifying the shopping experience for the customers and making it easier to shop online.

Moreover, certain advanced AI beauty makeup apps incorporate skin analysis technology to detect problems like dryness, redness, or acne. They can suggest skincare regimens along with makeup suggestions based on the analysis, and consumers have a personalized beauty experience. The combination of real-time camera feed and AI-based recommendations makes these apps highly convenient for consumers looking for personalized, accurate, and hassle-free makeup browsing.

3.3 Project Plan

Synthesizing facial recognition AI and skin analysis is important as it means training models that can recognize skin conditions, skin tones, and facial features effectively. This includes training a heterogeneous dataset of diverse skin tones along with makeup color as this would make sure all the shades of skin tone are included and facial landmark detection through computer vision algorithms and deep learning models being utilized for skin feature extraction. Real-time processing speed is important, and the use of libraries like OpenCV and TensorFlow Lite can improve the performance of mobile applications.

The inclusion of AR to provide virtual try-on functionality allows the user to see how different makeup items will appear on their face in real time. This requires proper mapping of facial features to place virtual makeup correctly, 3D rendering to create natural lighting as natural lighting would give more accurate results and skin appearance, and allowing users to try different shades and types of makeup.

Training the models to well detect facial features and skin color, including undertones and skin condition, is required for integrating facial recognition and skin analysis AI. This involves getting a heterogeneous data set that picks up a variety of skin tones as well as makeup tones, computer vision technology for facial landmark detection, and deep learning systems for skin feature assessment.

Product recommendation system development is a very crucial part of the project. This will involve the creation of an AI-driven engine that will be recommending makeup products as per the user's skin texture and tone analyzed. This involves the incorporation of color-matching algorithms as it would help find proper outcomes, machine learning models trained on user preferences, and collaborations with beauty

brands to provide an extensive array of products.

It is critical to create a user-friendly interface for the mobile application. Developing intuitive navigation and layouts using tools like Figma or Adobe XD will allow smooth integration of real-time camera functions, AR functionality, and product browsing features.

Testing has to be done on large groups of people who have different skin tones to make it precise so that it is applicable for all because the skin tones and undertones vary, and human skin pigments vary greatly from person to person, from the lightest skin tone to the darkest skin tone shade. This is attributed to variations in melanin production, which is influenced by genetics, environmental factors, and adaptation to evolution, lighting, and devices. AR feature optimization for natural and interactive virtual makeup applications is also of equal significance. Post-testing, distributing the app through channels like the Google Play Store and Apple App Store, marketing it through channels, and periodic updates based on user reviews will help it stay relevant and effective in the long run.



3.4 Challenges Faced Working on this Project

This project, positioned at the intersection of artificial intelligence and the beauty industry, brings forth both technological and market-related hurdles that must be skillfully navigated to ensure success.

Identifying and engaging with the appropriate audience for client acquisition is the main challenge, as meeting requirements is important from both ends. The rapidly evolving beauty industry features numerous competitors with exceptional digital solutions for personalized recommendations. Conducting thorough market research, competitive analysis, and strategic tagging will distinguish Herlan's AI application from its rivals, positioning it as an innovative and essential tool. Furthermore, formulating a compelling business case to alleviate concerns is essential for convincing companies to incorporate artificial intelligence into their existing customer experience systems.

Besides, the software faced marketing and outreach hurdles since real-time AI-based facial recognition and skin color detection were required. The most important part was to ensure it worked with varying skin types and lighting conditions, as under the different lighting, it became hard to identify the real shade.

Preliminary-level issues can be discrepancies in color matching and undertone recognition, necessitating enhancements in the algorithm and picture processing techniques. Before engaging significant customers, it is essential to resolve these performance concerns and work on it to assure trust and optimize adoption potential.

This project has also presented major challenges with the time management of my different daily tasks and multitasking was necessary. Managing market research, client interaction, presentation development, and interaction with the technology team requires a high level of prioritization together with close adherence to deadlines. The capability of managing multiple tasks without compromising performance standards has played an important role in fostering growth and achieving optimal market positioning of the app.

Juggling many tasks and responsibilities, everything included in this project has posed some considerable barriers. Effectively managing market research, client engagement, presentation creation, and coordination with the technology team requires proficient work prioritization and stringent adherence to deadlines. Being able to manage many roles with high expected performance was important for further development and to place the app in the best market position.

Chapter 4

Conclusion

My internship at TechnoMagic Private Limited has been a transformational journey. It whetted my technical capabilities and broadened my understanding of the integration of animation in technology-driven industries. Working in a professional environment with experts on actual projects opened great avenues for developing a pragmatic, hands-on approach to problem-solving and innovative implementation.

The meaningfulness of adaptation, further education, and effective collaboration was underlined in such a dynamic industry. It showed how important structured project management and technical skills are in achieving good results. These experiences gave me the confidence to take up professional challenges, to embrace the opportunity for development, and to go further in enhancing my skills both in animation and technologically related creative areas.

I look forward to further developing my skills in researching advanced animation techniques, enhancing my mastery of industry-standard tools, and further developing my project management skills. The knowledge and experience this internship will expose me to are going to affect my professional path: it will help me make informed choices about my career and prepare me for fast-evolving industries like digital media, animation, and technology integration.

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