

Internship Evaluation & Reporting

Thank you for taking the time to complete this form, this evaluation will be used to assess the student's participation in the Internship program.

Supervisors, using the form below please evaluate the student who interned with your organization, institution, or business. You can fill out this form electronically or you can fill it manually but eventually it must be signed and stamped from the company's side.

Please note that part I & III should be completed by the intern, part II should be completed by the direct supervisor in the company.

Part I. General Information - Student's Report

Student Info:

Student Name: Ahmed Abdelazeem Omar GUC Student ID No.: 40-13742

Faculty: Engineering

Major: MET

Student Mobile No.: 01094440934

Internship Info:

Company Name: Furnwish

Core Industry/Business: 3D modeling Country: Egypt

Supervisor Name: Ahmed Amin

Supervisor

Job

Title:

Senior Software Engineer

Supervisor Tel. No.:

Supervisor

Mobile

No.: 01021607211

Supervisor E-mail: ahmed.will28@gmail.com Training Department(s):

Source of Internships: (1) SCAD office (2) on my own (3) Referrals from GUC TA/Dr. (4) Recruitment website (5) others:

Work Place: (1) Organization (2) Head Office (3) Branch (4) Factory (5) Site (6) Others:

Period of Internship

(dd/mm/yyyy)

(dd/mm/yyyy)

From: 1/7/2020

To: 1/10/2020

Internship nature (Enrollment Status)

☐ Part time

Please specify, no. of Days per week: NA hours per day : NA

☐ Full time

Please specify, no. of Days per week: 5 hours per day : 8

Company Stamp



For SCAD internal use only

| | | | |
|-------------------|---------------------|----------------------------------|---|
| Serial no. | SCAD Comment | Academic Reviewer Comment | Academic Reviewer Signature <input type="checkbox"/> Accepted <input type="checkbox"/> Rejected Reason of rejection: Signature: |
|-------------------|---------------------|----------------------------------|---|

Please evaluate student's performance by marking the appropriate box:

For each of the following aspects, please mark the box in the rating scale that most closely corresponds to your evaluation of the profile of the student during the internship period. Please also feel free to offer comments and suggestions for changes and improvements in the space provided at the end of the form.

1=Unsatisfactory 2=Below Average 3=Satisfactory 4=Above Average 5=Excellent

| | 1 | 2 | 3 | 4 | 5 | NA |
|---|---|---|---|---|---|----|
| Skills & Professional Attributes | | | | | | |
| Ability to adapt to change | | | | | | |
| Analytical skills | | | | | | |
| Collecting data/ research data skills | | | | | | |
| Creativity | | | | | | |
| Follow up skills | | | | | | |
| Interpersonal skills with peers, supervisors, and clients | | | | | | |
| Problem solving | | | | | | |
| Punctuality | | | | | | |
| Reporting skills | | | | | | |
| Responsibility and accountability | | | | | | |
| Stress handling | | | | | | |
| Taking initiatives | | | | | | |
| Teamwork | | | | | | |
| Time management | | | | | | |
| Other: | | | | | | |
| Technical Background | | | | | | |
| Technical Knowledge | | | | | | |
| Compatibility of technical skills with the job | | | | | | |
| Other: | | | | | | |
| Command of Languages | | | | | | |
| Arabic | | | | | | |
| English | | | | | | |
| German | | | | | | |
| Other: | | | | | | |

1=Unsatisfactory 2=Below Average 3=Satisfactory 4=Above Average 5=Excellent

| Computer Programs & Databases | 1 | 2 | 3 | 4 | 5 | NA |
|-------------------------------|---|---|---|---|---|----|
| Python | | | | | | |
| Unity3D Engine | | | | | | |
| Django | | | | | | |
| .NET Framework | | | | | | |

| Overall Evaluation of Student's performance and profile | | | | | |
|---|--------------------|--------------------|----------------------|-------------|----|
| Unsatisfactory | Improvement needed | Meets expectations | Exceeds expectations | Exceptional | NA |
| | | | | | |

General Comments & Recommendations: (kindly mention intern potentials, areas of further development or technical constraints encountered during the internship period)

Very hard working intern, has the ability to solve problems and discover potential solutions on his own. Needs some work on his communication skills.

Very proactive and always providing progress reports on a frequent basis.

Yes No Maybe

Do you think similar candidates would fit in the Organization culture and qualify for job needs?

✓

Student Signature:

Ahmed

Date:

28/10/2020

Supervisor Signature:

Ahmed Saier

Date:

28/10/2020

Part III. INTERNSHIP REPORT – STUDENT’S INPUT

- This report has to be prepared by the student, it must be prepared and written in a **computerized** format, submitting the report in hand written format will not be accepted.
- Kindly refer to the Internship Report writing Guidelines on the GUC intranet – SCAD office folder.
- This report will be reviewed and evaluated from internal faculty members.

Internship Title: AI Furniture

Company/OrganizationName: Frunwish

Introduction: (Not less than 100 words)(should depict the main purpose of the report, covering the objective out of performing this internship in this industry/company specifically then cover the outline for the report’s structure)

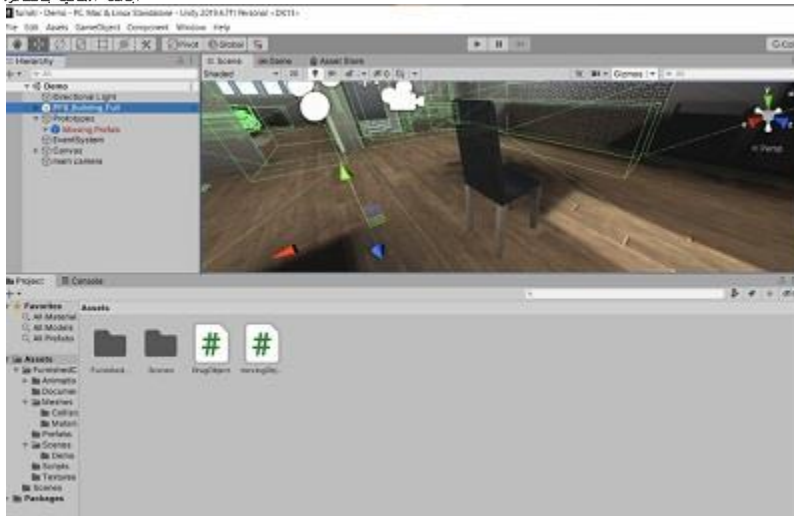
My 12-week internship is summarised in this report. The internship at the Furnish Company took place over the summer of 2020. The study's main focus was on machine learning algorithms and how to apply them to create contemporary house designs that adhere to contemporary furniture standards. I outlined a number of learning goals for myself before the internship even began. These goals include enhancing my communication abilities, getting a sense of what it's like to work in a professional atmosphere, figuring out whether this kind of work is a suitable fit for my future career, and ultimately identifying the knowledge and skills I still need to develop in a work situation.

Company/Organization Description:(Not less than 100 words)

Furnwish is a home furnishing platform enabling home owners to discover, visualize and interact with furniture using immersive Augmented reality (AR) experiences and technologies. Creating tools to empower retailers & design professionals in better showcasing their products and services for a continuous engaging experience.

Internship Performed Tasks:(Not less than 100 words)

The main task is to design a customized tool to help in modern homes designs and make the user able to systemize what he needs exactly in his/her owned homes. In order to achieve that we used the famous game developing platform unity to make a virtual environment starts with a basic home with 2 rooms and try to train our model using python language to move every item we used in the entire 3D environment to reach the final design of a specific room based on famous furniture standards. So, our project was divided into 4 phases; The first 2 weeks I had to make a research on the machine learning algorithms try to understand the basics of neural networks in addition to how to use CNNs for training a model to perform a specific task on Object detection not only on the furniture but generally to be able to deal with a pre-coded neural network. After sharing the research with the team by a presentation I had to learn how to work on the 3d environment and 3d objects using unity engine so, this process took a long time; I started with small games to know how to deal with unity assets and prefabs and the I took my work to the next level to learn how to use the predefined machine learning agent of unity to make a simple trained model of the 3d object. Related to the furniture work we used 3d models of basic pieces of furniture to use in a small design of a home. In unity the running script was displaying the room and some 3d objects of furniture pieces and our algorithm has to systemize those pieces in terms of the standards of the furniture or sometimes on the choice of the user.



The last image is an example of the view of the room and a 3d model of a chair. After running the script the ML agent uses the functionality of moving to move that chair around the room and calculates a score to reach the most suitable place of that chair. So, the more acceptable place of the piece the higher value of the score. The final interface of this process is a view of the room with the added furniture item and every furniture item placed in the right place with the highest possible score. The last 4 weeks I had to understand the Django and .net frame work to develop a website that uses images of the furniture items and output the 3d model of these items and then I had to add a script for that new item to help the training model in calculating the score while working with this item into our environment on unity engine. Finally the webpage created views options of the furniture item to make a choice of the 3d objects that will be used in the unity engine and the script will be applied on it.

Internship Evaluation:(Not less than 100 words) (This section should answer the following questions in the form of a paragraph)

What skills do you think that you have gained from the internship? Did the internship meet your expectations? If not, please explain why? How do you think the internship will influence your future career plans? How do you think the internship activities that you carried out are correlated with your studies? Which of the academic courses that you have taken in GUC were the most related to your internship?

That internship was a great experience. I have added a lot of skills and more knowledge to myself. I have faced many problems while I was working on that project because of my small experience in the field of the machine learning and AI in addition to my limited skills in web development. So, after this twelve-week internship I will be more familiar with the basics of designing an interactive 3d environment and using the machine learning algorithms to deal with different objects in the 3d world and also make a smart way of creating the neural network to train a model for detecting objects. Furthermore, I have been more familiar with how to use my previous knowledge I have learned in the academic courses like Computer graphics (DMET 501) and Advanced Computer lap (CSEN 904), My knowledge in these 2 courses helps me in working on the 3d objects and it's transformations. Also I have used more experiences I gained from the Advanced computer Lab (CSEN 703) course in creating the webpage that I used for the furniture items models. So, we can say that I benefited from this experience more than I expected.

Conclusion: (Not less than 100 words) (A summary of key conclusions derived from the internship experience. general observations about the sector in which your internship company/institution operates)

Finally, I thought this internship was useful overall. I've gained new knowledge, developed my abilities, and made a lot of new friends. Several of my learning goals were accomplished. The advancement of projects has consistently been aided by teamwork. As a result of my research, I gained more knowledge about 3d-unity and machine learning. I still have a lot to learn and develop. The internship helped me identify my strengths and shortcomings, which was another benefit. This assisted me in identifying the skills and knowledge I need to develop soon. I was very pleased with that internship in the end.

Please rate your satisfaction with the internship experience.

☒ Very satisfied ☐ Somehow satisfied ☐ Neutral ☐ Somehow dissatisfied ☐ Very dissatisfied

Would you recommend this internship to other colleagues?

☒ Yes ☐ No ☐ Maybe

References:(If any external sources are used, provide references for any information quoted)

Appendices: (Upon availability, charts, pictures, etc.)

Disclosure /Confidentiality Agreement

This agreement is to acknowledge that the information provided by any company / organization during the internship is unique to this business and confidential.

Therefore, anyone reading this agreement agrees not to disclose any of the information provided during the internship without notifying & taking the employer's / supervisor's approval.