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 INPUT
Student Info:

Student Name: **Ahmed Abdou Hussien Ahmed** GUC Student ID No.: **43-15781**

Faculty: **MET**   Major: **CSEN**

Student Mobile No.: _____

Internship Info:

Company Name: _____ German Research Center for Artificial Intelligence, DFKI GmbH _____

Core Industry/Business: ___ Artificial Intelligence _____ Country: ___ Germany __

Supervisor Name: **Fangwen Shu** _____ Supervisor Job Title: **Researcher** _____

Supervisor Tel. No.: **+49 631 20575-3526** _____ Supervisor Mobile No.: _____

Supervisor E-mail: **Fangwen.Shu@dfki.de** _____ Training Department(s): ___ Augmented Vision ___

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

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

Part II. EVALUATION AND COMMENTS – DIRECT SUPERVISOR'S INPUT

Period of Internship   **(dd/mm/yyyy)**   **(dd/mm/yyyy)**

     From: _ 01 _/_08 /_ 2021 __   **To:** _ 31 _/_ 10 _/__ 2021 __

Internship nature (Enrollment Status)

   ☐   Part time   Please specify, no. of Days per week: _____ hours per day : _____

   ☒   Full time   Please specify, no. of Days per week: ___ 5 _____ hours per day : ____ 8 _____

Company Stamp

Deutsches Forschungszentrum
für Künstliche Intelligenz GmbH
Trippstadter Straße 122
Postfach 2080
D-67608 Kaiserslautern

For SCAD internal use only

Serial no.	SCAD Comment	Academic Reviewer Comment	Academic Reviewer Signature
			☐ Accepted ☐ 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					X	
Analytical skills					X	
Collecting data/ research data skills					X	
Creativity				X		
Follow up skills						X
Interpersonal skills with peers, supervisors, and clients				X		
Problem solving					X	
Punctuality			X			
Reporting skills					X	
Responsibility and accountability						X
Stress handling						X
Taking initiatives						X
Teamwork						X
Time management				X		
Other:						
Technical Background						
Technical Knowledge					X	
Compatibility of technical skills with the job					X	
Other:						
Command of Languages						
Arabic						X
English				X		
German						X
Other:						

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

	1	2	3	4	5	NA
Computer Programs & Databases Please use space below in specifying the program/software used during the internship and evaluate student's performance accordingly						
Deep learning				X		
Python					X	

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

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

Mr. Ahmed worked on a deep learning topic where he showed that he could quiclky learn and understand the topic. He managed to work with large datasets and use our compute clusters.

He was able to answer questions properly and discuss new ideas with our group members.

He produced good results and was albe to present and explain them. After his work was concluded he worked with Mr. Shu on publishing part of his work in a scientific paper.

	Yes	No	Maybe
Do you think similar candidates would fit in the Organization culture and qualify for job needs?	X	☐	☐

Student Signature:

Date:

Supervisor Signature:

Date:

24.05.2022

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: Junior Researcher Intern

Company / Organization Name: DFKI (German Research Centre for Artificial Intelligence)

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)

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

Internship Performed Tasks: (Not less than 100 words)

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?

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)

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.

4

Student Career & Alumni Development Office. scad@guc.edu.eg | **German University in Cairo** New Cairo City - Main Entrance Al Tagamoa Al Khames; Egypt

Report

Introduction:

It was a good opportunity to work in machine learning with expert team in that field which helped me to improve my research and development skills. The main internship goal was to develop an end-to-end neural network model for 3D planar reconstruction from single RGB image. The work in the internship was divided into three parts with the department of Augmented Vision. For each part these are research time and development time. I joined this internship see the field of machine learning and also it was in Germany in high end research center with powerful resources and professional working environment.

Company Information:

The **German Research Center for Artificial Intelligence** (German: *Deutsches Forschungszentrum für Künstliche Intelligenz*, **DFKI**) is one of the world's largest nonprofit contract research institutes for software technology based on artificial intelligence (AI) methods. DFKI was founded in 1988, and has facilities in the German cities of Kaiserslautern, Saarbrücken, Lübeck, Oldenburg, Osnabrück, Bremen, Darmstadt and Berlin. DFKI shareholders include Google, Microsoft, SAP and Daimler. The directors are Antonio Krüger (CEO) and Helmut Ditzer (CFO).

DFKI conducts contract research in virtually all fields of modern AI, including image and pattern recognition, knowledge management, intelligent visualization and simulation, deduction and multi-agent systems, speech- and language technology, intelligent user interfaces, business informatics and robotics. DFKI led the national project Verbmobil, a project with the aim to translate spontaneous speech robustly and bidirectionally for German/English and German/Japanese.

Internship Performed Tasks:

The main task is to develop an end-to-end neural network model for 3D planar reconstruction from single RGB image in Pytorch. It was divided into three sub tasks / branches (planar instance segmentation, Depth prediction, Plane parameters estimation (normal, offset)). We started with segmentation and appended to it depth and plane parameters. We conducted many difficult experiments for each task to get the highest accuracy with the help of a very great powerful cluster with huge GPUs and CPUs. This clusters saved a lot of time in the experiments. For each sub task we had time to research to find the best approach and then followed by the implementation. At the end of the internship We took some time to achieve best fusion between the three branches.

Internship Evaluation:

I had great chance in working in Machine learning field. I learned a lot from my team. Deep learning require powerful GPUs that DFKI provided to us. Researching and communication is the greats skill I learned from this internship beside the deep learning. This intern with give me great chance to work in big companies as DFKI is well-known research Center in Europe. The final model we build achieved realistic results that we are going to compute with in SLAM system competitions. I had similar elective courses in GUC which is deep learning with Dr Seif and Mohamed Salem in semester .

Conclusion:

The aim of the internship was to work in Machine learning that become popular recently. And also how hard is to use deep learning model in production. Deep learning is nice idea but it requires many research to optimize and develop a real life product. DFKI is a great research center which I recommend for any one want to work in machine learning specially in augmented vision.

References:

- https://en.wikipedia.org/wiki/German_Research_Centre_for_Artificial_Intelligence