

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: Ashraf Ezzeldin Mahmoud Teleb GUC Student ID No.: 43-15867
Faculty: MET Major: CSEN
Student Mobile No.: 01001541078

Internship Info:

Company Name: German Research Center for Artificial Intelligence, DFKI GmbH
Core Industry/Business: Artificial Intelligence Country: Germany
Supervisor Name: Yongzhi Su Supervisor Job Title: Researcher
Supervisor Tel. No.: +49 631 20575-3416 Supervisor Mobile No.: _____
Supervisor E-mail: yongzhi.su@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 / 09 / 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
Forschungszentrum
für Künstliche Intelligenz GmbH
Trippstadter Straße 122
Postfach 2080
D-67608 Kaiserslautern

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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					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. Teleb worked on a deep learning-based topic. He was able to learn the basic skills and managed to quickly get into working with our compute cluster. He worked with complex deep learning models. He produced good results, and was able to analyse how the network learned specific parameters and present that clearly. He successfully managed working with different types of image data, and was able to present his topic clearly.

	Yes	No	Maybe
Do you think similar candidates would fit in the Organization culture and qualify for job needs?	X	<input type="checkbox"/>	<input type="checkbox"/>

Student Signature:

Date:

Supervisor Signature:


Date:
24.05.2022

Internship Title: Deep Learning Internship.

Company / Organization Name: German Research Center for Artificial Intelligence, DFKI GmbH.

Introduction:

Doing an Internship in Machine Learning at **German Research Center for Artificial Intelligence, DFKI GmbH** is wonderful as it is the future as it is used in a lot of fields. Behind all of that, I learned how to communicate and work with professional, hard-working engineers. I was working in the augmented vision department, doing image segmentation and depth perception models, which can work in 2D RGB images. In this report, we will talk about DFKI GmbH and the services that they offer. Then we will talk about the tasks that I did in the internship and what I learned from it.

Company / Organization Description:

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 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 title of my topic is *Iterative Single Image Depth Prediction and Semantic Segmentation*. In this intern, different techniques have been tested to merge the semantic segmentation model and depth model iteratively as the features of each model will be merged with RGB image to enhance the other model. PSPNet, which is a semantic segmentation model, has been used as a base model for semantic segmentation in addition to depth, in order to obtain the depth model, the output layers have been modified and the loss function has been adapted. Finally, the proposed model has been trained and validated on the SUN-RGBD dataset against the state-of-the-art. And the experiments found that, training the models starting with a helper pretrained model acts better than training the two models together from scratch.

Internship Evaluation:

In this internship, I learn how to solve the problems which I face during doing my tasks and how to read a scientific research paper as it is an important skill in machine learning. This intern makes me satisfied and encourages me to do something like it again. Doing an internship in a research centre like DFKI helps me in my future career as it will help in my academic life. This internship was in Deep Learning in Computer Vision, which is very important for any field in computer science. This intern is related to some of my academic courses, such as Machine Learning and Artificial Intelligence.

Conclusion:

The main purpose of this internship was to make a model which does Depth Prediction and Semantic Segmentation in an iterative way using 2D RGB images. It was a great opportunity to have this internship with a special and cooperative supervisor to enhance my experience and learn how to deal with complex machine learning models. Doing this internship in Germany makes me improve my communication skills. So I recommend this internship to my colleagues for them to start their careers with a rewarding internship at a fantastic firm and gain experience with a real-life job that is different from academic life at university.

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:

DFKI: <https://www.dfki.de/web>

PSPNet: <https://paperswithcode.com/method/psenet>

SUN-RGBD: <https://paperswithcode.com/dataset/sun-rgb-d>

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.