

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 Name: Ahmed Mahmoud Mosaad

GUC Student ID No.:43-9092

Faculty: Engineering

Major: Media Engineering & Technology (MET)

Student Mobile No.:01553391854

Internship Info:

Company Name: German University in Cairo

Core Industry/Business: ARAtronics Laboratory Country: EGYPT

Supervisor Name: Amir Roushdy Ali Supervisor Job Title: Associate Professor

Supervisor Tel. No.: +53567

Supervisor E-mail: amir.ali@guc.edu.eg Training Department(s): Research

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:

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

Period of Internship

(dd/mm/yyyy)

From: 1 / 5 / 2022

(dd/mm/yyyy)

To: 30 / 6 / 2022

Internship nature (Enrollment Status)

Part time

Please specify, no. of Days per week: 2 hours per day : 8

Full time

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

Company Stamp

ARAtronics Lab

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
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1	2	3	4	5	NA
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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
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1	2	3	4	5	NA
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Computer Programs & Databases

Please use space below in specifying the program/software used during the internship and evaluate student's performance accordingly

Mathematica				✓		
LabVIEW				✓		
2021 M					✓	

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)

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

Student Signature:

Ahmed Mosaad

Supervisor Signature:

Assoc Prof. Amr Rashed

Date:

28/6/2022

Date:

June 29th 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:**Company / Organization Name:**

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)

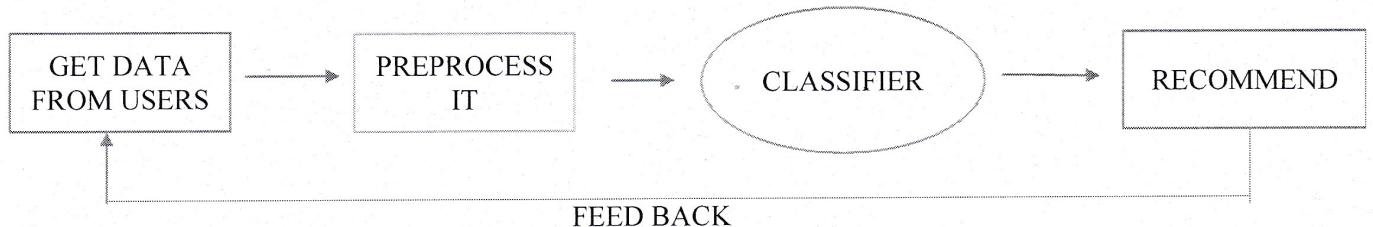
In the last few months, I've been looking for an internship that would allow me to put some of my education into practice, and I found an opportunity to work under the supervision of Assist. Prof. Dr. Amir R. Ali (ARAtronics Lab Group Director) on a project that allows agile project management, which was initially developed for ARAtronics lab members but could be expanded to a broader scope. In the following parts, I'll go over the Organization/Lab I work for and the tasks I performed to further improve the system I've worked on before to build in further detail, And Then I'll summaries the talents I've developed as a result of this encounter.

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

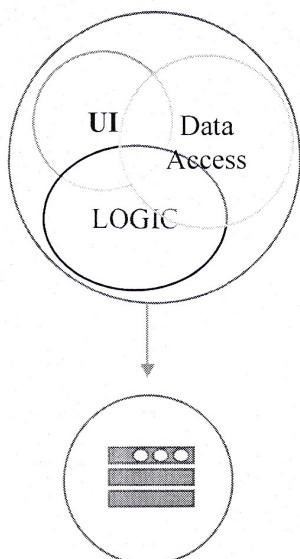
At the German University in Cairo, the ARAtronics Research Facility (Applied Science and Robotics Laboratory for Applied Mechatronics) is a multidisciplinary research and development centre for opto-mechatronics solutions. For any automation system, traditional Mechatronics systems are eager to generate a conventional closed-loop feedback control. They're focusing on incredibly sensitive tiny sensors and actuators at the ARAtronics Research Center, which will vastly improve standard Mechatronics close-loop feedback methods. The importance of using micro-optical sensors and integrating them with traditional Mechatronics systems will pave the way for a new technology based on opto-mechatronics devices to be introduced. One of their objectives is to include some optical components into standard micro-electro-mechanical systems (MEMS)

Internship Performed Tasks: (Not less than 100 words)

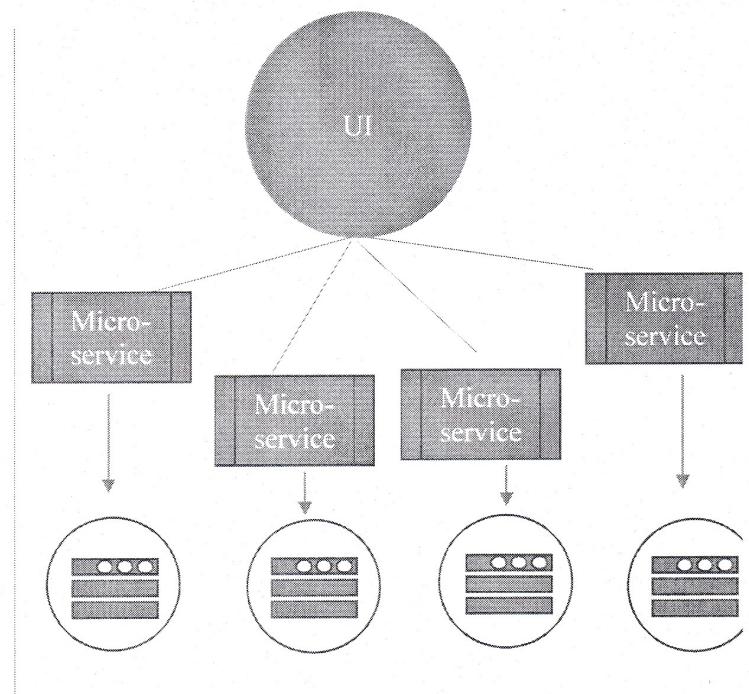
The primary purpose of this project, as previously stated, is to establish an Agile Management System that will assign tasks to members of the ARAtronics laboratory and track their progress based on the predicted and actual burn rate for each project, We've also added a recommendation system based on Machine learning principles that aim for a perfect match and a high chemistry between team members based on the previous recorded data of them working together and consequently the output of that task/project. Also, We started to migrate the project from a Monolith architecture that was initially built as a prototype to a Micro-service architecture based one using the light Vertx framework, that could potentially be able to be used in the process of scaling up and scaling down on. I worked on the implementation of a machine learning-based recommender system as well as migrating the project architecture throughout this internship.



a) Flowchart of the recommender system



Monolith Architecture



vs Micro-service architecture

Here is a representation of a the monolith architecture I worked on to convert from, to a more scalable architecture represented in Vertex framework (a lightweight, open-source framework used to create micro service-based architecture)

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

Throughout the Intern, I learned a mix of technical and non-technical abilities. Technically, I learned how micro-services are developed and integrated with the cache server (in our instance, Redis) and database server (in our case, PostgreSQL) utilizing a fast and light framework like Vertx. In addition, I learned a variety of programming styles and languages, including asynchronous and non-blocking programming. In terms of non-technicality, I am now capable of working in a group, am more capable of multitasking, and have solid personal time management skills after cooperating with my teammate and swapping assignments to perform what's required a predetermined timeframe.

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)

In a summary, this internship has been a fantastic educational experience. I can confidently state that my experience at ARAtronics and under the direction of Assis prof Dr.Amir R. Ali taught me a great deal. Needless to say, the technical aspects of the work I've done aren't ideal and may be improved given enough time. I believe the time I spent researching and learning Micro-services and Machine Learning was well worth it, and that it helped me find an acceptable solution for constructing a fully functional online service. Two of the most significant lessons I've learned are time management and self-motivation.

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.