

**AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)**

**FACULTY OF SCIENCE & INFORMATION TECHNOLOGY**

**INTERNSHIP AFFILIATIONREPORT ON**

**SQA Engineer Intern in Akaar IT Ltd.**

An Internship Report Presented to the

OFFICE OF PLACEMENT and

DEPARTMENT OF COMPUTER SCIENCE

In Partial Fulfillment of the Requirements for the Degree

Bachelor of Science in Computer Science and Engineering

**Supervised By**

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**Submitted By**

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**xx-xxxxx-x**

Summer 2021-2022

Date of Submission: 11.08.2022

# LETTER OF SUBMITTAL

Date: 11.08.2022

Rashidul Hasan Nabil

Lecturer

Department of Computer Science

Faculty of Science and Technology

American International University Bangladesh

Subject: **Submission of an Internship Affiliation Report on a Software Quality Assurance Engineer as part of an internship affiliation.**

Greetings Sir,

The fact that I am able to give my internship affiliation report titled "Software Quality Assurance Engineer" with pride fills me with pride. This report outlines my achievements to date, my duties, and the experiences I've had while working on my internship project. During my time at Akaar It Ltd., I was assigned to work as a Software Quality Assurance Engineer. As an Intern SQA in office, my primary role was to test the developed software by the developer and ensure the quality of those software. In addition, I have worked on a variety of projects that have been allocated to me by my industry supervisor. I had done everything in my ability to complete the tasks I was given in the allotted time. This entire report serves as evidence of the amazing opportunities I had while working as a SQA engineer for a prestigious company during my internship. I would want to show my gratitude to everyone who has helped me during my internship.



Sincerely yours,

Student Name

ID: xx-xxxxx-x

BSc in CSE

American International University of Bangladesh

Date: 11.08.2022

**LETTER OF ENDORSEMENT**

The Internship Affiliation Report entitled “***SQA Engineer intern in Akaar It Ltd.***”, has been submitted to the Office of Placement and Department of Computer Science in partial fulfillment of the requirements for the degree of **Bachelor of Science in Computer Science and Engineering** by **Shah, Faysal Mohammed, 19-39367-1**. This report is presented to the Internship Defense Committee for evaluation and has been accepted.

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| Rashidul Hasan Nabil  *Internship Supervisor* (academic)  Lecturer  Department of Computer Science  *Faculty of Science & Technology*  American International University-Bangladesh |  | Sheikh Rifat  *Internship Supervisor* (industry)  CMO  Akaar It Ltd. |
| Abhijit Bhowmik  *Internship External*  Associate Professor  Department of Computer Science  *Faculty of Science & Technology*  American International University-Bangladesh |  | Prof. Dr. Dip Nandi  *Professor & Director*  *Faculty of Science & Technology*  American International University-Bangladesh |

**ACKNOWLEDGEMENT**

My gratitude and thank go to my internship supervisor Rashidul Hasan Nabil , Lecturer , Department of Computer Science, Faculty of Science And Technology, American International University-Bangladesh (AIUB) whose guidance and support helped me a considerable measure in completing this report.

I am very much thankful to “Akaar It Ltd.” for giving me this opportunity. I want to thank each and every one of the representatives for their friendly and accommodating attitudes. I am also grateful for the chance to interact with so many wonderful people and experts who mentored me over the course of my three-month internship.

For making this journey possible with the organization, I would want to take this opportunity to thank Sheikh Rifat, CMO , for warmly welcoming me to the internship.

I’d also like to thank Mohammad Ashiq, CTO , despite his hectic schedule, took the time to listen, guide, and keep me on track during the training, as well as allowing me to complete my project at their popular Company.

I'm hopeful that this opportunity will help me advance in my career and open up more doors for me in the future. In addition, I want to thank my family, teachers, and other mentors for supporting me.

Last but not least, I want to thank all of the department heads and staff at the organization for their thoughtful and priceless advice, which was very helpful for both my theoretical and practical studies.

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1. **INTRODUCTION**

The internship is the component of a bachelor's program where a student gets their first taste of the real world of employment. The internship is a student's first experience transitioning from academic study to industrial labor because in a bachelor's program, students mostly learn the theoretical aspects of their studies. For any student, an internship is crucial since it teaches them the fundamentals of industrial jobs, which they will need to launch their careers in any field. A student gains more professional skills, experience, and practical knowledge through an internship, all of which are crucial for success in their future careers. American International University – Bangladesh (AIUB) has been offering internship in every semester for their students to complete their bachelor degree with the experience of real life working to build up their students future career .As an American International University – Bangladesh (AIUB) student of Computer Science and Engineering program, I have also done my internship to complete my bachelor degree in this Summer 2021-2022 semester. Akaar It Ltd. gave me the opportunity to complete my internship as an intern SQA engineer at Akaar It. Where I worked in Software Development department as a SQA. In my whole internship journey, I have Tests many Software and ensured the quality of the software of my internship responsibility. I tests those projects with the knowledge and skills which I have achieved from my whole bachelor program. I've gained a lot of knowledge over my internship experience. Since my internship is the final component of my bachelor's degree before I begin my job career, I am really hopeful that I may use all of my internship experiences to advance my job career.

**1.1. Rationale**

This report's objectives are to provide an overview of the work I completed for my internship. All of the areas that I worked on during my internship will be covered in this report. This report will detail every activity I've engaged in as well as my experiences and skills. The aims, history, mission, vision, policies, and goals of Akaar It will also be covered in this paper. The working standards, workload, and working environment I experienced during my internship at Akaar It Ltd. are also covered in this report.

**1.2. Background**

Akaar IT is a privately owned IT Support and IT Services business formed in 2015. Today we’re proud to boast a strong team of IT engineers who thrive on rolling up their sleeves and solving your IT problems and meeting your business needs.

* + - We are committed to providing quality IT Services
    - Our benefits are endless for local IT Companies & Startups
    - Really know the true needs and expectations of customers
    - Talented & experienced management solutions for IT
    - Processes of achieving the excellence and continue improvements

Akaar IT has the expertise and resources required to design, develop and manage the highly available and highly secure technology platform that you need, giving you the time and confidence to focus on running your business. Here are 4 reasons why you should choose us to build your infrastructure, support your people and systems, as well as advise you on projects that will reduce your risk, enhance your productivity and give you a real competitive edge.

All nice corporations share 2 commons purposes: First: all of them have a clearly outlined purpose, a reason for being, that everybody understands and considers important. And second: To form a operating surroundings that supports their valuable workers and rewards excellence, honesty, mutual respect, and fairness. nice corporations [support](https://www.akaarit.com/index.php)a culture wherever folks push to induce results and where they're appreciated for his or her efforts as a result of that too is that the purpose of doing [business.](https://www.akaarit.com/index.php) Considering all the on top of criterias, [Akaar IT](https://www.akaarit.com/index.php) will be thought-about one in all the most effective IT companies in Bangladesh. [Akaar IT](https://www.akaarit.com/index.php), with it’s dedicated and ball-hawking team of pros has been able to produce dynamic and advanced solutions and services for the shoppers based mostly everywhere the globe. Let’s follow the remainder of the journal to mention with me, yes [Akaar IT](https://www.akaarit.com/index.php) claims true of it’s being on high of all the best IT company in Bangladesh and conjointly well accepted within the world industry. [Akaar IT](https://www.akaarit.com/index.php) is an IT service and software system development company in Bangladesh providing customized solutions across the responsive Mobile app, Net application, [E-commerce](https://www.akaarit.com/index.php) & Enterprise Solutions.

1.2.1. **Vision**

[Akaar IT](https://www.akaarit.com/index.php), delivers innovative product simply what your business requires. we have a tendency to are the leading suppliers of efficient solutions that are scalable, reliable and engineered on the newest technology platforms.

1.2.2. **Mission**

[Akaar IT](https://www.akaarit.com/index.php), specialise in business to the dynamics of the data Technology and code development industry. With the rise in web penetration, growth in smartphone device market, reducing the scale of devices and increase in variety and kinds of mobile devices, we have a tendency to facilitate organizations adapt to the current evolving landscape.

1.2.3. **Services**

This can be the primary and foremost criteria that make a company best. Actually, this is that the core principle to survive at the dynamic  IT industry. While not providing client satisfactory services a [company](https://www.akaarit.com/index.php) can ne'er gain the trust that it has to raise among thousands of IT firms within the market.

Services of Akaar it is :

* + - Custom Software Development
    - Web and Mobile based Application
    - e-Commerce Solutions ERP Solutions
    - AR VR Solution
    - Cloud and Security Solutions
    - Apps Development
    - Digital Marketing
    - Domain & Hosting
    - Biometric System

1.2.4. **Goals**

* provide mobile app with new features, excellent design, user-friendly interface for a refreshed cutting-edge mobile experience.
* perform an intensive market research to get best digital selling strategy
* Achieve client's full satisfaction
* Processes of achieving the excellence and continue improvements
  + Really know the true needs and expectations of customers

**1.3. Objective**

My internship's primary goal is to help me get ready for a career in a variety of companies and organizations. In order to realize my dream, I decided to complete my internship as a SQA intern at Akaar It Ltd. I did this so that I could learn about Manual Testing and project management from my reputable supervisors. After understanding this, I think I can apply these abilities to advance my career in the field in which I'll be working.

1. **ACTIVITIES**

As a SQA intern To finish my internship, I must fulfill a number of tasks. I have accomplished various duties that were given to me, and while doing so, I have gained much knowledge. In this area of my report, I'll explain about the tasks and duties I accomplished throughout my entire internship.

* 1. **Work-Related**

As an intern SQA, my duty was Prepare the test cases by testing the newly developed software’s. I was assigned as an intern SQA for Testing the software’s. I had the responsibility to help my respectable supervisor Sheikh Rifat sir in Different projects of clients and tests new features of pos software’s.

As a SQA intern I have to do test the newly developed software’s and writing the test cases for those software’s. As a SQA firstly do the meeting with the clients and gathering the requirements. After that I have to meeting with CTO and CMO sir about those clients requirements. After the meeting I have to analysis the requirements and do the formal meeting with developers and planning about the projects. After that I have to plan about the testing how I complete my testing and ensure the quality of this software’s. After developer completing their tasks I will test the software’s and writing the test cases. I was tests some various tests like unit testing, integration testing , regression testing etc. After complete my testing if all is ok I was reporting to the CMO sheikh rifat sir and he check the finally and approved the software. I also help the CMO sir on the project managements.

* 1. **. Organization-wide**

 Akaar IT, specialize in business to the dynamics of the data Technology and code development industry. With the rise in web penetration, growth in smartphone device market, reducing the scale of devices and increase in variety and kinds of mobile devices, we have a tendency to facilitate organizations adapt to the current evolving landscape. More than building first products, serving the newest [technology services](https://www.akaarit.com/index.php), cloud and security solutions, we have a tendency to believe building semi permanent relationships. Our culture is galvanized by collaboration in no matter we do. At the onset of the project, we sit down with our shoppers to know their needs and consult them on what extra needs can take place in future. This can be the essence of our client centrical approach. As an intern SQA, I have many organizational and departmental duties and responsibilities such as:

* Always come to the office at 9:30 am.
* Identify trends and patterns within large sets of data and internal applications.
* Verify accuracy of software’s.
* Instruct student while they facing any problem.

As an intern SQA I have to done many other activities such as:

* Systems/Subsystem definition.
* Automation Development(design ,coding, testing).
* Case Development.
* Design and develop automation frameworks.
* Gathering requirements from the clients.
* Analysis the requirements.
* Follow all the policies.
* Case/script designs.
* Doing Manual Testing on the software’s.
* Writing the test cases.

**2.3. Other relevant activities**

The main concern of akaar it is pos software’s. If your business still uses an Electronic Cash Register (ECR) and a credit card terminal, at some point you’ve probably considered upgrading to a complete Point of Sale (POS) system. However, if you’ve been hesitant in the past, there’s no better time than now to upgrade. POS systems are easier to use and more cost-effective than ever before.

We are providing the best POS software for your business. Our Software " Akaar POS" is 100% Secure, Quality full, Faster & Easier. I have to do maintenance of pos software. When implementing the new features of this pos software I have to test this features and prepare the test cases. After approving the new features developer merge this with the main domain. Lot of new features are implemented on this pos software’s when I was intern SQA . I have to do as an SQA in this projects is :

1. Help the group and the software testers test software applications using various testing techniques.
2. Write the Manual Test Cases.
3. Maintain the Jira Bug Tracking Tools.
4. Creating detailed, comprehensive, and well-structured test plans and test cases.
5. Doing Load Testing by JMeter.

Akaar it pos software’s are so fast and secure. As a SQA I have to do lot of testing and implemented new features on this software’s.

1. **CONSTRAINTS/CHALLENGES**

Every student's bachelor's degree should include an internship because it will be their first opportunity to experience a real working environment. A student's internship marks the beginning of a brand-new chapter in his or her life, and as a result, there are a number of challenges that must be faced for the internship to be completed successfully. Throughout my internship experience with Akaar IT, I have faced and overcame a number of challenges. I'll go over the challenges I faced and overcame during my internship as a SQA Field intern in this section of my report.

**3.1. Identified/Observed in the Organization**

Akaar IT Ltd. is the organization where I have completed my internship program under supervision of respectable Sheikh Rifat sir. Akaar IT Ltd. is such an organization where they ensure the Quality Services for the clients. Akaar IT is such a place where everyone is so much helpful to others. As an intern SQA, Sheikh Rifat sir always helped me, if I faced any problem during my internship. As we already knew that, Pos software is the main concern of akaar it. If your company still relies on an Electronic Cash Register (ECR) and a credit card terminal, you've certainly thought about switching to a full Point of Sale (POS) system at some point. There is no better moment to update than right now, though, if you've been on the fence in the past. POS systems are more user-friendly and economical than ever. Pos system of akaar it is the best pos system. This system is friendly for the user. User can easily use these system. All respectable businesses have two goals in common: First off, everyone agrees that each one of them has a distinct purpose or reason for existing that is significant to them. Second, to create a work environment that values their precious employees and encourages excellence, honesty, respect for others, and justice. Because that is also the goal of doing business, great organizations encourage a culture where people push to induce results and where they are acknowledged for their efforts. Akaar IT will be regarded as one of Bangladesh's top IT firms when all the above factors are taken into account. With its committed and competitive team of professionals, Akaar IT has been able to offer innovative and dynamic products and services for clients from all over the world. Let's continue reading the journal together to discuss whether Akaar IT's claims that it is the best IT company in Bangladesh and that it is also well-known internationally are true. Akaar IT is a Bangladeshi provider of IT services and software system development that specializes in developing responsive mobile apps, web applications, e-commerce platforms, and enterprise solutions. As an SQA intern I have to do lots of meeting for the clients requirements and gathering the requirements from the clients. In Akaar IT we have scrum meeting on every Thursday where the management discuss about the work of the week and prepare the lists of the next week.

**3.2. Academic Preparation**

In Akaar IT Working with experienced software developers and engineers has always interested me. This Internship trip on akaar as a sqa engineer is was extremely hard for me. I have to stay current on every project and get ready for any upcoming issues. I can learn something really new about software quality assurance during this internship time. I can learn how to create the test cases for new software and how to do automation tests. I also gained knowledge on how to deal with clients and pressure. My experiences throughout this internship will be beneficial for my future work as a SQA engineer. I've had a lot of problems during my time as an intern, but I was able to overcome them with the aid of my senior and supervisor. During this internship, my seniors can teach me a lot of stuff. I learned a lot during this entire internship term, and I thoroughly liked my time working as a SQA engineer with Akaar IT.

**3.3. Personal/Professional Skills**

I'll need to develop a number of professional and interpersonal skills as an intern student if I want to succeed. I need to be able to interact with developers effectively in my role as an intern SQA. For me to preserve my career, professional contact with my colleagues is important. I also have to communicate with the developers to fix any issues. I'll also need good communication skills in that position. I will need strong communication skills to succeed in my field of employment in the future, and an internship is the perfect setting to demonstrate these abilities. We also require great leadership qualities. I have developed some project management abilities as a result of the several group projects we have finished and the numerous projects I have led. I had the chance to exercise that leadership skill throughout my internship. In addition, we need to develop a broad variety of academic skills for the employment sector, which I was able to do through both my internship and my bachelor's degree. As a result, we can say that an internship is a time when the foundations for the development of professional and individual abilities are laid in anticipation of future work.

1. **ACQUIRED KNOWLEDGE**

Any student's internship is a new phase where they transition from academic theoretical study to a completely different phase of their bachelor's program. Everyone must therefore gain a great deal of new experience and expertise throughout their internship. I have learned a lot from everyone as an intern in the Akaar IT as SQA . I'll talk about what I've learned throughout my entire internship in this section of my report.

**4.1. Consequences to Organization**

First and foremost, I want to express my gratitude to Akaar IT for providing me with the chance to complete my internship there as a SQA. I was given the opportunity to learn from a variety of vital and novel things by Akaar IT. As a SQA intern, I have also picked up a lot of information and skills. I was given a SQA internship under the direction of Sheikh Rifat sir. Throughout my internship, Sir taught me a lot of new things. Throughout my whole internship, Sir advised and mentored me, and I gained a lot of knowledge from him. My boss taught me a lot of new stuff. Additionally, I picked up testing techniques from my reputable boss. I have therefore gained a lot of new knowledge and skills from my internship.

* 1. **Implications to University’s Internship Program**

Every student who wishes to graduate from American International University - Bangladesh (AIUB) must complete an internship. The AIUB had a really fantastic concept. because during an internship, students are first exposed to a real work environment. As a result, if a student completes an internship as part of their bachelor's degree program, they will get knowledge of the workforce, which will be useful when they apply for actual jobs following graduation. A student gains knowledge and skills during an internship that will be useful in their future careers. As a SQA intern, I gained testing expertise that will be very helpful to me if I ever work as a SQA in any company. I also gained client-maintenance skills, which will be useful to me in the future. In addition, I've picked up a lot of academic Git knowledge that will be useful if I ever work for a software company. Additionally, I learnt about load testing and automated testing, both of which will be useful in the future. Therefore, we may conclude that completing an internship while earning a bachelor's degree will greatly benefit us after graduation.

* 1. **Effects on Personal/Professional Skills**

As a SQA intern at Akaar It, I can with pride declare that my internship helped me develop a wide range of academic, professional, and personal skills, including:

* My capacity for problem-solving has increased.
* As a result of my interactions with my supervisor and clients, my communication skills have improved.
* I've improved my time management skills.
* I've gained more insight about honesty and punctuality.
* I've gained leadership skills.
* I've developed more comfortable dealing with clients.
* I've gained knowledge of load testing and automated testing.

My internship has helped me develop additional personal and professional skills, as I have already mentioned in other parts of my report. Being an intern SQA at Akaar IT is thus a blessing for me.

1. **CONCLUDING STATEMENTS**

**5.1. Summary**

Akaar IT Ltd. provides a world class Services in Bangladesh. It is one of the leading Software Firm in throughout the country. This report represents and shows the whole activities and skill gain of me in this organization by doing Internship as a SQA here. Working with really helpful supervisor. Working in a perfect environment for employee. I have shared my thoughts and experience of the whole journey in this report. In this period, everyone I've worked with has been quite supportive. I successfully completed my internship thanks to their coaching.

**5.2. Recommendations/Suggestion for Future Strategic Actions**

One can improve their quality by taking advantage of this internship chance to learn how to test software in a real-world setting. The opportunity can be improved by giving the intern more testing-related tasks to complete. The duties of the intern could include automation testing in addition to manual testing. Interns should be taught how to conduct customer meetings and gather requirements so they may better prepare themselves for the future.

* + 1. **Organization**

During your internship at ICB Bank, you were only briefed about the bank’s in-house software due to security concerns.

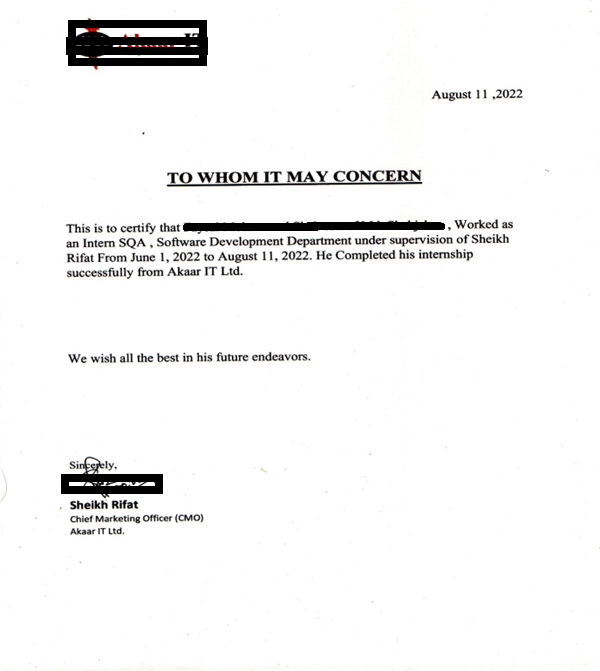
* + 1. **University**

I would like to express my gratitude to the Faculty of Science and Technology for providing me with the opportunity to gain a deeper understanding and appreciation of the competitive nature of the professional field. This experience has been invaluable in advancing my knowledge of computer science and website development. By participating in this program, I have been able to develop my skills and gain a better understanding of the challenges and opportunities that exist within the industry.

* + 1. **Personal/Professional**

Undoubtedly, Akaar IT provides professional environment for their employee. I have gained many knowledge’s and skills during my internship in akaar IT as a SQA. They provide me best and friendly environment. As a intern I gained many skills which will be help me in my future career. I gained knowledges how to communicate with the clients and others. I also learned many new technologies which is helpful for me in my future career.

**RECOMMENDATION LETTER**

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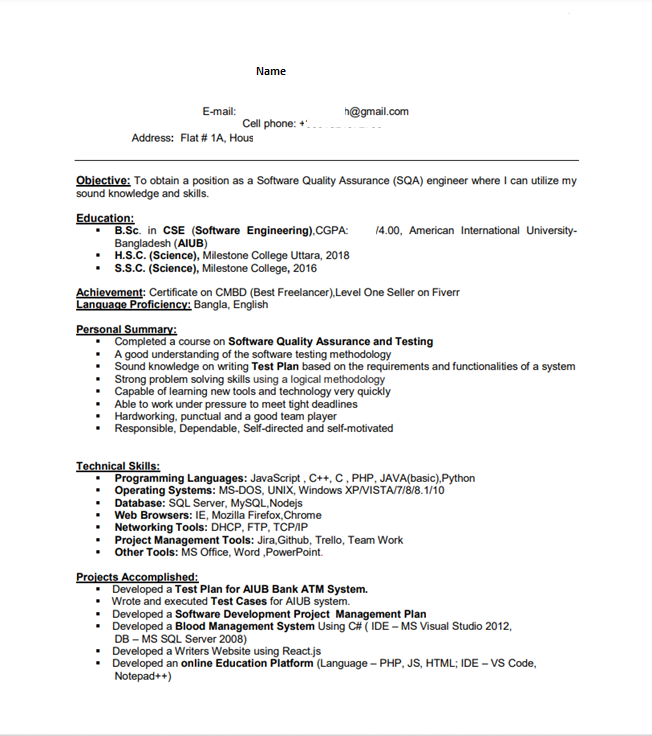
**REFERENCES**

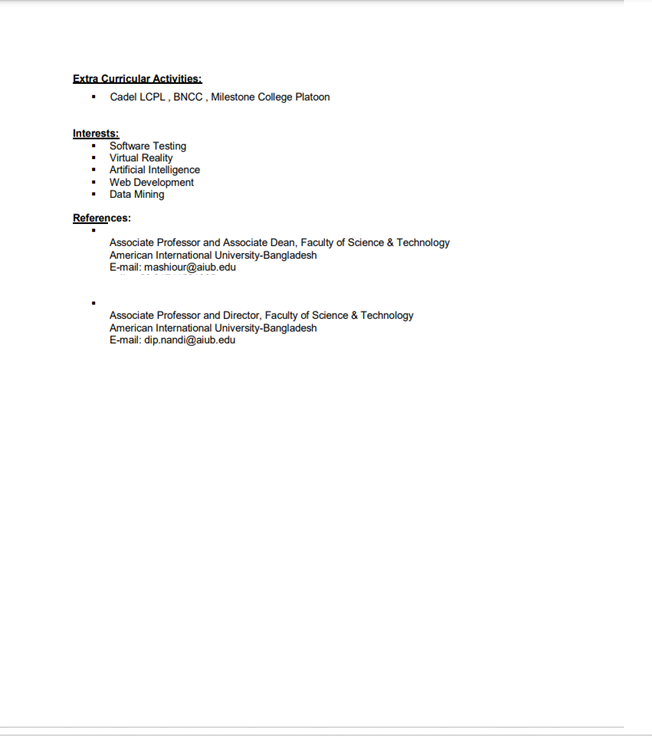
1.What Took Akaar IT To Be the most Effective IT Company in Bangladesh. (2020). *blog*. Retrieved from akaar it: https://www.akaarit.com/blog-single.php?slug=What-Took-Akaar-IT-To-Be-the-most-Effective-IT-Company-in-Bangladesh-

2.Akaar IT Ltd. (2020). *Akaar IT .* Uttara: Akaar IT Ltd.

3.Akaar IT pos system. (2020). *Pos Software*. Retrieved from Akaar IT Pos system: https://www.akaarit.com/pos.php

**APPENDICES**

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