

To whom it may concern,

This is Mohammad Istiyak Hossain Siddiquee, a 3rd-semester student of the M.Sc. in Data and Knowledge Engineering (DKE) program of OvGU and I am exhilarated by the notion of working as a workstudent while studying to complete my MSc. degree.

To brief you about myself, I am from Bangladesh. Before coming to Magdeburg, I worked for around three and a half years in my country as a software developer. As part of my job, I worked in different positions ranging from backend server developer to DevOps (specializing in Kubernetes). During my first job, I worked as a Backend Java developer where I gained experience in Java, Spring framework, PostgreSQL, unit testing, integration testing, etc. Before starting my second job, I started to learn containerization technologies like Docker, rkt, etc. and container orchestration frameworks like Kubernetes. In my second job, things went a step higher and I was tasked to be a DevOps and Kubernetes Administrator there. At the same time, I was also working on Blockchain, Java, NodeJs, SQL Server, T-SQL, Angular, etc. as our company believed in technology-agnostic full-stack developers. Thus I acquired experience in all the stages of the software development life-cycle.

However, after leaving Bangladesh for higher studies, as I kept learning, I am now comfortable in Java, Python, NodeJs, goLang, Angular, Kafka, along with 'Infrastructure-as-code' tools like Jenkins, Terraform, Ansible, and containerization tools like Docker, Kubernetes, Helm, istio, ELK stack etc.

Furthermore, since I got into OvGU to pursue a career in Data Science, I have completed two projects as part of my course-work. Currently, I am working on a scientific team project on '3D Medical Image Registration using Deep Learning'. Also, I have started working on a project in FinTech innovations that will be done using Blockchain, Deep Learning, and Kafka. Furthermore, recently I have completed a seminar on Kubernetes. Because of these projects and courses, I have an understanding of machine learning, deep learning, neural networks, CNN, RNN, attention mechanisms, transformers, etc. and a familiarity with Tensorflow, PyTorch, MLFlow, etc. frameworks and libraries.

Apart from my professional and educational career, I have always been active in social and organizational activities as well. During my undergraduate studies, I worked for four years in SUST Science Arena, the only science organization of my university. As recognition of my efforts there, I was promoted to be the General Secretary, the second most important position of the organization. Furthermore, I was the President of a cultural alliance of fourteen like-minded organizations of my university. Also, I was an adviser to Anushandhitshu Biggan Chakra, a national level science organization, and the divisional coordinator for Science Popularizing Society of Bangladesh (SPSB), another national-level science organization of my country.

As can be seen in this testimony and in my CV, I am technology agnostic, I am willing and eager to work with any technology for which the market has a demand. As I am a relatively fast learner and can adapt to using different organization-specific applications and tools quickly, the kick-off time I require to get started in a new project is relatively less. Furthermore, dealing with new technologies demands a positive attitude in handling pressure and challenges, which I have acquired from my experiences with voluntary organizations, and because of those experiences, I am particularly well-known for my amiable behavior and my participation as a team-player.

Therefore, I am confident that I will be able to contribute to your esteemed organization given the opportunity, and I shall faithfully execute all the tasks that I shall be assigned on to the best of my ability by exploiting my skill-sets to its fullest.

Thank you for your time and consideration.

Yours Sincerely,  
Mohammad Istiyak Hossain Siddiquee



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## Mohammad Istiyak Hossain Siddiquee

### Recent Academic Projects

#### **Fair Recommendations in Research (December 2020 – present)**

An on-going scientific team project to investigate the fairness issues of recommendations engines and to implement a fair recommender system using graph based algorithms.

#### **Medical Image Registration using Deep Learning (August 2020 – present)**

This is an on-going scientific team project where the task is to research and develop a novel medical image (MRI) registration process using Deep Learning in PyTorch.

#### **Benchmarking Attention Networks in Stock Prediction (December 2020 – present)**

This is an on-going scientific team project where we are benchmarking the performance of attention networks in predicting stock prices.

#### **Genre Detection of 19<sup>th</sup> Century Fictional Literature using Linguistic Features (June 2020)**

In this team project, we extracted, using python, a custom feature vector based on writing style from a highly imbalanced dataset of 19<sup>th</sup> century fictional literature and compared the performances of multiple algorithms in classifying the books.

### Professional Experiences

#### **DevOps/Full-Stack Developer at Orion Informatics Limited**

From **November 2017 to April 2018 – 4 Months**

**Project NuArca** is a Blockchain (IBM HyperLedger) project for automated vote casting of shareholders in stock market. Here, as part of the core team, I worked as a DevOps/Full-Stack developer. I have gathered development experience in TypeScript and Angular 4 for frontend, Java (Spring), Jasper Reporting, Junit for backend, and T-SQL, SQL Server 2016 for the database.

As **DevOps**, I was tasked to develop a system to automate the build of codebase with Docker, Gradle, and Jenkins (Pipeline DSL), along with TestNG, SonarQube. This was a solo project.

**Project mCash Mobile Wallet** is an R&D project for centralized mobile banking for Bangladeshi market. I was the Backend Java Developer as well as Docker and Kubernetes Administrator of this project. Here, in a brief span of time, I had the responsibility to deploy self-maintained Kubernetes cluster on bare metal, Digital Ocean, and on Google Kubernetes Engine.

#### **Back-End Java Developer at BizMotion Limited**

From **November 2014 to November 2017 – 3 Years**

**Project BizPharma** is a business automation software built exclusively for the pharma industry of Bangladesh. Being there from the very beginning of the product life cycle, as a back-end Java developer, I took part in designing and developing a massive ERP server in Spring and Hibernate framework from absolute scratch, including database (PostgreSQL) design, service/component design, security design, and server maintenance.

### Technical Skills

#### **Docker**

- Docker, Docker-Compose, Kubernetes, Helm, Rancher, Openshift, Istio

#### **Infrastructure**

- Terraform, Ansible
- Blockchain, Kafka, ELK Stack
- Linux, Bash, Tomcat, jboss, vmware
- aws, Google Kubernetes Engine, Digital Ocean, IBM Bluemix Kubernetes

#### **Deployment**

- Jenkins, Pipeline CI/CD, GitLab, Maven, Gradle, Apache SVN, Git, Gatling Test suite

#### **Language and Frameworks**

- Java, Python, Javascript, golang, R, C, Arduino
- Spring, Jersey REST, Hibernate, Jasper, NodeJS, NestJS, Django, Gin-Gonic
- PostgreSQL, MySQL, SQLite, MS SQL Server, T-SQL, MongoDB, Cassandra
- Angular9, Typescript, AJAX, jQuery
- JUnit, TestNG, Jasmine Mocha, Istanbul, SonarQube
- TensorFlow, PyTorch, MLFlow

Project History	<p><b>Java</b></p> <ul style="list-style-type: none"> <li>- Library management using Jersey REST Services</li> <li>- Download Manager and Website Grabber</li> <li>- Contact manager and viewer</li> <li>- Multi-tabbed notepad</li> <li>- Web Browser</li> <li>- Desktop gadget for searching contacts and other system operations.</li> </ul> <p><b>Android</b></p> <ul style="list-style-type: none"> <li>- The Hive, a GRE vocabulary app with highest number of words</li> <li>- Personal Secretary, an app to attend calls and SMS on behalf of client</li> <li>- Automatic Call Recorder</li> <li>- Bulk SMS sending app.</li> </ul> <p><b>Database</b></p> <ul style="list-style-type: none"> <li>- Nikhoj, a website, built using PHP, MySQL, HTML, CSS, for the identification of missing/dead persons, found by charitable organizations.</li> </ul> <p><b>Javascript and related</b></p> <ul style="list-style-type: none"> <li>- A blog service for personal use using MEAN stack</li> <li>- An AI driven, location based flat recommendation system with customizable criteria set</li> <li>- Khoj, a location based apartment recommendation system with a set of 15 criteria for tuning the result set.</li> </ul> <p><b>Arduino</b></p> <ul style="list-style-type: none"> <li>- A mini-bot that senses obstacles in its path and changes direction automatically.</li> </ul>	
Educational Qualifications	<p><b>M.Sc. in Data and Knowledge Engineering (Data Science)</b> Otto-von-Guericke University Magdeburg, Germany. CGPA (running) - 2.0</p> <p><b>B.Sc. (Eng.) in Computer Science &amp; Engineering,</b> Shahjalal University of Science &amp; Technology, Sylhet. Year of Passing: 2014 CGPA: 3.22 (scale of 4.00)</p> <p><b>Higher Secondary Certificate (HSC)</b> Noakhali Govt. College, Noakhali. Year of Passing: 2009 GPA: 5.00 (scale of 5.00)</p> <p><b>Secondary School Certificate (SSC)</b> Noakhali Zilla School, Noakhali. Year of Passing: 2007, GPA: 5.00 (scale of 5.00)</p>	
Communication Skills	<p><b>Achieved 7.5 in IELTS (3rd May 2019)</b> Score Breakdown: Listening 9, Speaking 7, Writing 6, Reading 8</p>	
Organizational Experiences	<p><b>President</b>, United Cultural Alliance, an alliance of 14 prominent organizations of SUST From <b>November 2013</b> to <b>February 2014</b></p> <p><b>General Secretary</b>, SUST Science Arena From <b>December 2012</b> to <b>February 2014</b></p> <p><b>Sylhet Divisional Coordinator</b>, Science Popularizing Society, Bangladesh (SPSB) From <b>January 2013</b> to <b>December 2014</b></p>	
References	<p><b>Mahmudul Haque Fahim</b> Project Manager, BizMotion Limited mahmudul.fahim@gmail.com</p>	<p><b>M. Jahirul Islam, PhD., PEng.</b> Professor, Dept. Of CSE, SUST. jahir-cse@sust.edu</p>