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## Mohammad Istiyak Hossain Siddiquee

### Recent Academic Projects

#### **E-Parking Payment System with Blockchain and Deep Learning (October 2020 – present)**

This is an on-going scientific team project whereby we are tasked to implement an automated payment system with blockchain and number-plate recognition using deep learning in Python.

#### **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.

#### **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.

#### **Information Retrieval System using Apache™ Lucene (November, 2019)**

This Java project is part of the Information Retrieval course. Given a repository of text/HTML dataset, we were to parse, index, and store them in Apache™ Lucene. Upon searching, we were to perform a search and rank operation, based on provided string.

### 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

#### **Language and Frameworks**

- Java, Python, Javascript, golang, R, php, Matlab, C, Arduino, Assembly
- Spring, Jersey REST, Hibernate, Jasper, NodeJS, NestJS, django
- PostgreSQL, MySQL, SQLite, SQL Server, T-SQL, MongoDB, Cassandra
- ReactJS, Angular9, Typescript, AJAX, jQuery
- JUnit, TestNG, Mocha, Istanbul, SonarQube
- TensorFlow, PyTorch, MLFlow
- REST, gRPC, GraphQL

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>