**Name:** **MD MAMUNUR RAHMAN**

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**LinkedIn Link:** <https://www.linkedin.com/in/md-mamunur-rahman-31a6375>

**Website:** <http://mamun-portfolio.azurewebsites.net>

**GitHub:** <https://github.com/mamun-131>

**PROFILE:**

**An innovative and passionate Artificial Intelligence, chatbot, data processing, data analytics, process automation (RPA), and software developer along with solid knowledge, and experience in machine Learning algorithms (Regression, Classification, Clustering, Recommendation System, Reinforcement Learning, Summarization, Question-Answering, and Time Series Analysis) and Deep Learning (Natural Language Processing and Computer Vision). Have extensive experience in analysis, designing, and development of client/server, web-based, n-tier, and event-driven applications and microservices following Agile methodology using the latest software development technologies with complex problem-solving skills. As a strong communicator, self-motivated team player with the education of Artificial Intelligence, Software Engineering Technology and Accounting Information System (AIS), I am confident to make an excellent contribution to an AI or software development team.**

**SUMMARY OF QUALIFICATIONS:**

• Excellent working experience in LLM (BERT, BanglaBERT, GPT-2 & 3) for both official implementation and personal R&D. Also have experience working with Stamford CoreNLP, pretrained language model.

• Good experience in prompt engineering, embedding and API uses for GPT2,3,4 and ChatGPT.

• Excellent working experience in both Natural Language Processing and Computer Vision Domains of Deep Learning.

• Proficient in implementing Machine Learning and Deep Learning algorithms along with tuning hyperparameter (batch size, weight decay, learning rate, warmup steps, number of epochs, random seeds, n-gram, bias) to ensure best fits of the model avoiding over fitting or underfitting implementing exercise of cross validation, regularization and data augmentation,

• Have mastery in designing and implementation of chatbot (NLU, Conversation Flows, Rules, Polices, Complex custom actions, API integration for SAP ERP & Nuance agent management) for complex operation of Supply chain, Customer Service and Human Resource Management.

• 15 years working experience under SAP ERP along with SAP-HANA, PLEX ERP and Ebiz ERP along with excellent expertise in data analytics using different tools like Helios, BexAnalyzer, Tableau, PowerBI. Have hands-on experience in designing SAP Business Intelligence (BI) for logistic business.

• 15 years of working experience with different database systems like Oracle (PLSQL), SQL Server(T-SQL), Firebase, MySQL and MongoDB. Also have good working experience in Data Warehouse & Mining using Microsoft BI tools, SSAS/SSIS/SSRS (OLAP, ETL).

• Extensive software development and data analytics development experience of providing solutions for supply chain, customer service and accounting and financial domain in business.   
• Experience of working in multicultural environment in different countries (Singapore, UAE: Dubai & Sharjah, Egypt, Vietnam, India, Nepal and Mauritius).

**SKILLS - AI**

**LLM**: BERT, Bangla BERT, GPT-2 & 3.

**NLP**: Word Embedding, RNN (Bi-directional, LSTM, GRU) and Transformer.

**Chatbot Platform**: RASA, KORE AI, ChatGPT. LivePerson, Dialogflow, Microsoft Bot Framework 3 and 4 (LUIS NLU), Stanford CoreNLP, LYNC SDK for Skype for Business, Qbox, Botium, VoiceFlow.

**Chatbot Development**: Intent and Entity Classification (NLU training data generation), Conversation Design, Complex action scripts (Python/JavaScript/C#), Rules, Polices.

**Computer Vision**: CNN (LeNet, MobileNet, ResNet, ZfNet, Attention Based CNNS), OCR, Image Segmentation (image classification, object localization, object detection, and image segmentation).

**AI Based Analytics**: Time Series, ARIMA, SARIMA, FBProphet, KNN, Deep Learning Foresting, Lead Scoring, Churn Prediction.

**ML Libraries**: Keras & TensorFlow, Pytorch, NLTK, Spacy, Scikit Learn, Theano, HuggingFace Transformer.

**SKILLS - Programming Language**

**Programming Languages**: Python (NumPY, Pandas, matplotlib), C#, Java, JavaScript, C++, PHP, VB/VBA Macro.

**SKILLS - Software Development**

**Framework**: Full Stack Java, Full Stack .NET and MEAN Stack, Spring/Spring Boot/ SEAM (REST/SOAP), JPA, Hibernate, C#/VB MVC 5.2, .NET 4.5, EF 6, .NET Core, NodeJS (REST/SOAP), Micro Services, ExpressJS, Angular/React/Javascript, JSP, Servlet, Bootstrape, TypeScript, Jquery, CreateJS, DOM, AJAX, JSON, PHP, HTML5, Emmet, Android Studio-Java and iOS (XCode, Swift)

**Databases/ERP/Analytics**: Oracle (PLSQL), SQL Server(T-SQL), Firebase, MySQL, MongoDB, Data Warehouse & Mining using Microsoft BI tools, SSAS/SSIS/SSRS (OLAP, ETL), SAP ERP, SAP-HANA, Helios, BexAnalyzer, Tableau, PowerBI, financial reporting, supply chain analytics, business analysis, business-modeling and budgeting.

**SKILLS - Cloud/Others**

HuggingFace, AWS, Azure, Heroku, Docker, Openshift, Kubernetes, Kafka, TSV, Kibana, Github, Gitlab, Confluence, Jira, NPM, Bower, AMP, Maven, Gradle, Wildfly and Linux (C & PHP scripting).

**Achievements**:

• I developed chatbot engine from scratch for Philips Lighting Canada (Current name Signify). This project got first position of Signify Excellence Competition 2019 in Canada that led to Signify Americas regional competition in the same year.

**PROFESSIONAL EXPERIENCE:**

**Job Title: Consultant - Machine Learning and NLP Expert ChatBot Project**

**Company: Bell Canada**

**Duration:** February-2020 to Present

**Location**: Mississauga, Ontario, Canada

**Responsibilities:**

* Consultant and developer of Artificially Intelligent Chat Bot based on Machine Learning, Deep Learning.
* Working with multiple AI chat bot platforms; RASA (1, 2, 3), LivePerson, Dialogflow.
* Preparing NLU Training dada, designing chatbot conversation, bot configuration, complex action scripting (python) and model building.
* CICD pipeline-based bot model training (GitLAB, OCP, Kafka)
* **Deployed LLM model BERT and GPT-2 with DIETClassifier (Rasa Dual Intent Entity Transformer) through pipeline.**
* Implemented different tokenizers and featurizers like WhitespaceTokenizer, SpacyTokenizer, SpacyFeaturizer and ConveRTFeaturizer
* Customized spelling checker and lemmatization
* Customization of bot actions and external data pipeline (micro services or database)
* Development of auto training data generation tool.
* NLU health and testing (Qbox, Botium Box)
* E2E testing for chat bot conversation flow.
* SAP API integration customize action script and pipeline development.
* Python based machine learning (Keras, Tensorflow, Spacy, NLTK)
* Have developed Summarization and Question/Answering system using BERT model.
* Different channels for chatbot deployment along with customized web-based UI (JavaScript, Jquery, NodeJS, customized Chat Bot API SDK)
* JWT, Auth2, customized authentication, JWT implementation.

**Job Title: Consultant - DW Reporting Architecture (Part time)**

**Company: Robertshaw Itasca**

**Duration:** May-2022 to December-2022

**Location**: 1222 Hamilton Parkway, Itasca, IL 60143, USA

**Responsibilities:**

1. Designing data processing architecture for end-to-end reporting solution based of the set up with SQL Server, Oracle 18c, MS PowerBI, PLEX ERP.
2. Lead the team to develop data processing queries and tools to integrate with reporting system
3. Lead the team for ETL job and data cleaning project in Data Wearhouse (SSIS, SSRS, SSAS, SQL Server).
4. Developed customized ribbon/tab for Excel to integrate with SQL server data query using VBA.
5. Developed web data scraping tool using VBA.

**Job Title: Supply Chain Analytics Developer**

**Company: Signify Canada Ltd/ Philips Lighting Canada Ltd**

**Duration:** October-2016 to February-2020

**Location**: 281 Hillmount Road, Markaham, Ontario L6C 2S3

**Responsibilities:**

1. Developed customized AI chatbot engine (intent/entities recognition, conversation flow and API based custom actions) for the channel Skype for Business platform using C# .NET 4.5.2, Web API, LYNC .NET 2013, .NET.HTTP, .NET Web.MVC, XML.Linq, XML, Microsoft.Office. Interop.Outlook(for auto email functionality), RegularExpressions, .NET Threading.Tasks, ODBC, OLEDB, IO, MS SQL Server and MS Access in the year 2018 and 2019. Still the enhancement of this project is going on so far. This project got first position of Signify Excellence Competition 2019 in Canada that led to Signify Americas regional competition in the same year.
2. Developing data dispatching **REST APIs** service using **.NET Core 2.2/3.0 and NodeJS** to feed the data to customized robust **MS Excel Add-In**. DevOps operation to setup, to deploy and handling application pool for API services application to **IIS-8 and IISNode on Windows Server 2012 R2**. Also enhancing MS Excel Add-In using Custom UI Editor for Microsoft Office (XML UX) and VBA.
3. Developed **SQL Server database integration tool** using **C# .NET 4.5.2, .NET.HTTP, XML.Linq, XML** and **MS SQL Server** in the year 2017.
4. Working with RPA (Robotic Process Automation) using UiPath tool.
5. Developed issue management software using **VBA and MS Access** in 2017.
6. Developed customize data processing and reporting tool interacting with SAP BI BEx Analyzer using **VBA** for Demand Planning and Supply Chain departments.

**Job Title: Full Stack Software Development**

**Company: Freelancing**

**Duration:** Jan-1999 to Present

**Location**: Toronto, Ontario Canada

**Responsibilities:**

1. Developed **AI Chatbot** using **ASP.NET Core 2.0, Microsoft .NET Bot Framework, LUIS (AI NLP)** and **MS SQL Server 2014**.
2. Developed **NLP based AI chatbot** using **KORE.AI framework, Javascript**.
3. Developed different R&D full stake project using **C# ASP.NET, .NET Core, .NET Form, WPF, with Stanford CoreNLP, LUIS, Kore AI NLP, NLTK, Spacy, Keras (DNN, CNN, RNN), TensorFlow(ML, DL), Scikit Learn (ML) using C#, Python, MongoDB, ExpressJS, AngularJS, Angular2/3/4/5, NodeJS (REST/SOAP), Spring/Spring Boot/, PHP, AWS** and **Microsoft BI tools, SSAS/SSIS/SSRS (OLAP, ETL).** You will find those projects on my git hub link.

**My GitHub Link:** https://github.com/mamun-131

1. Developed **ASP.NET Core E-Commerce Web application** using **.NET Core 3, REST API, Core Entity Framework, SQL Server 2017, Angular 8** (including Angular Material, RXJS and **Type Script.**
2. Developed **ASP.NET Web application** using **.NET 4.6.1, .NET MVC, .NET.HTTP, REST API, Entity Framework 4, SQL Server 2106, Angular 5** (including Angular Material, RXJS**), React, NativeScript** and **Type Script.**
3. Apart from **ASP.NET** development participated to different projects of software development as a freelancer where I used **MongoDB, ExpressJS, NodeJS (REST/SOAP), Spring/Spring Boot/, SEAM (REST/SOAP), JPA, Hibernate, AngularJS, Angular2/3/4/5, React, NativeScript, Javascript, JSP, Servlet, Bootstrap, Oracle (PLSQL), SQL Server (TSQL)** and **MySQL.**

**Job Title: Web Application Developer (Contractual)**

**Company:** Rasona Inc.

**Duration:** December-2015 to June-2016

**Location**: 678 KENNEDY RD, #3-4, TORONTO, ON M1K 2B5

**Responsibilities:**

Developed online shopping application using C# ASP.NET and MySQL database.

**Job Title: Manager, IT&S, Accounting & Finance Department**

**Company:** MGH Group, [www.mghgroup.com](http://www.mghgroup.com)

**Duration:** November-2003 to August-2015

**Location**: 152 Beach Road #14-04 Gateway East, Singapore

**Achievement:**

1. **Led SAP Business Intelligence (BI for SAP HANA a real-time data warehouse) module implementation team.**
2. Developed different data processing applications and tools like bank reconciliation tool, cheque printing tool, automated consolidation of group financials process, customized cost analysis tool, customize cash-flow reporting tool, automated revenue reporting system for shipping line and airlines business, automated tax reporting system and freight reconciliation tool for logistics business.
3. Have 7 years of experience working under SAP platform and got exclusive training to configure SAP FICO module.
4. Led the accounting and finance team of different businesses (shipping line, aviation, freight forwarding, contract logistics). Experienced in financial reporting, analysis, business-modeling and budgeting exercise.

**Job Title: Accounts Officer, Payable**

**Company:** CPBangladesh Co. Ltd. [www.cpbangladesh.com](http://www.cpbangladesh.com)

**Duration:** March-2003 to November-2003

**Location**: House 28, Alaol Avenue, Sector 6, Uttara Dhaka 1230, Bangladesh.

**Achievement:**

1. Developed and redesign payables transaction processing tool using Visual Basic.
2. Developed customized Chat Server and Client for company using Visual Basic.

**Job Title: Instructor of Visual Basic programming Language (Part time),**

**Company:** Dhaka University Computer Association

**Duration:** January-1999 to July-2002

**Location**: University of Dhaka, Bangladesh

**Achievement:**

1. Taught Visual Basic programming language along with SQL Server and Access Database, resulting many students had started a career in professional Visual Basic development.

**ML CERTIFICATIONS:**

**Specialization Certificate - Generative Adversarial Networks (GANs)** Nov-2022 to Dec-2022

**-** DeepLearning.AI (Coursera)

**Specialization Certificate - TensorFlow: Advanced Techniques** Jul-2022 to Oct-2022

**-** DeepLearning.AI (Coursera)

**Specialization Certificate - DeepLearning.AI TensorFlow Developer** Feb-2022 to Jun-2022

**-** DeepLearning.AI (Coursera)

**Machine Learning** Apr-2021 to Jun-2021

**-** Stanford University, USA (Coursera)

**Natural Language Processing - Specialization Certificate** Jan-2021 to Jun-2021

**-** DeepLearning.AI (Coursera)

**RASA Certified Advanced Developer** Oct-2020

**RASA Certified Developer** Jul-2020

**NLP - Natural Language Processing with Python** Jan-2019 to May-2019

**-** Udemy

**EDUCATION:**

**Advanced Diploma, Software Engineering Technology (Co-op)**  Jan-2016 to Dec-2018 **CGPA: 4.13.**

Centennial College, Toronto, Ontario.

**Training Program on Android Application Development** Jan-2015 to Mar-2015

BASIS Institute of Technology & Management (BITM)

Dhaka, Bangladesh, web: [www.basis.org.bd](http://www.basis.org.bd/)

**Master of Business Administration** Jan-2001 to Dec-2002

**(Major in Accounting Information System)**

**Bachelor of Business Administration** Jun-1996 to Dec-2000

**(Major in Accounting Information System),**

Dhaka University, Bangladesh.

