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Mohammad Ariful Islam
Researcher / Application Developer

Portfolio:
github.com/ArifulIslamPreence
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OBJECTIVE

Highly experienced Research and Development Engineer with a strong background in **problem-solving**, Solution research, and Application development. Proficient in understanding and developing scalable and structural solutions. Highly skilled in programming languages such as **Python**, **Java**, **C++** and C#. Well-versed in **RDBMS**, SQLs. Highly experienced in technologies like Docker, and Kubernetes. I have excellent experience and motivation for working in a collaborative environment. Seeking a challenging position where I can utilize my skills and experience to contribute to the success of an organization.

SKILLS

Programming Languages	**Python**, **Java**, **C++.**, C#
Frameworks	**Django**, **Pyramid**, Java Spring, **React Native**, **Angular**, **Node**
Architecture and Stacks	Microservices, **MVC**, n-tier, **MVVM**, MEAN, MERN.
Cloud Services	Strong knowledge and utilization of cloud services, including **Amazon Web Services**, **IBM Cloud**, Azure, and **Google Cloud Platform**.
CI/CD Tools	Expertise in using **Jenkins** for implementing robust CI/CD pipelines.
Container Orchestration	Designing, leading, and implementing highly scalable and complex DevSecOps solutions using container orchestration engines like **OpenShift**, **Kubernetes**, Helm Charts, etc.
RDBMS and Databases	Strongly familiarity with **relational databases**, **MySQL**, Tomcat, **SQL**, **NOSQLs**, PL/ SQLs and similar efficient data management techniques.
Source Control Tools	Proficient in using **Git** and GitHub for version control as well as **maven**, **gradle** for source control and collaborative development.
Linux/Unix Environment	Strong operational experience in Linux/Unix environments and scripting languages such as Shell scripting, Python, and Groovy.
Development Methodologies	Agile Development, **REST**, SDLC.

WORK EXPERIENCE

Software Design and Development Engineer. 　　　　　　　　　　　　　　　　September 2022 — August 2023

Yuja Inc. (360 Education Lab) 　　　　　　　　　　　　　　　　　　　　　　　　　　　*North York, Toronto.*

- **Technologies used: C++**, **Python**, C#, **MySQL**, pl/sql, MVVM architecture, **AWS**, **REST API**.
- Developed multiple headline features for the in-house developed product Yuja Education Video Platform (**EVP**), a widely used educational tool by 100+ universities in USA and Canada.
- Performed research and implemented improved video streaming technology, and smarter video conferencing utilizing updated libraries such as **Media Foundation**, and **DirectShow** written in C++.
- Conducted thorough research and Developed an embedded **C++** project at Yuja, where I successfully applied machine learning techniques to process streaming video data. This innovation significantly improved the efficiency and functionality of video data handling, contributing to enhanced user experiences and system performance.
- Designed and developed the new multi-screen feature for the YuJa Screen Capture (YSC), a desktop application that captures multiple lecture notes and student performances and meets the university's requirements as well as optimizing the existing product architecture.
- Hands-on experience in leveraging **REST APIs** within multiple streaming projects.

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Machine Learning Research Engineer   **January 2021 — July 2022**
National Research Council Canada   *National Research Council, Toronto, Canada*

- **Technologies used: Pandas**,**Tensorflow**, **Pytorch**, **Pyramid**, scikit-learn, keras, **Time-series analysis**, **Deep learning modeling**, EDA, **MLP**,
- Worked and trained under the supervision of **Dr. Shahrear Iqbal, Research and Development Officer, NRC**.
- Incorporated explanatory data analysis, data visualization, and time-series analysis in the proposed research and achieved significant improvement over other related solutions.
- Performed extensive research and developed a predictive analytics solution for cellular network RF using deep learning technologies (i.e., **PCA**, **LSTM**, **Autoencoder**)
- Developed scripts that perform continuous predictive security analysis for the sections of large-scale industrial computer labs in Los Angeles, California.
- Conducted through research and developed a security measure for the organizational computer research lab using deep learning technologies (**ConV NN**, **PCA**, **IF**).

Application Developer   **December 2019 — December 2020**
Eastlink Canada   *Eastlink Telecommunication LTD., Canada.*

- **Technologies used: Python**,**Java**, **Spring**, **Django**, Docker, PostgreSQL, **React**, Typescript
- Conducted full life-cycle web application development **(Agile)** in frameworks like **Django** and **Spring-boot**.
- Played a pivotal role in the design, development, and maintenance of applications for backend support using Django.
- Leveraged Django's built-in features and third-party libraries to streamline development processes and enhance the functionality of web applications.
- Collaborated in the development of a **React** application seamlessly integrated with a Django backend system at Eastlink, contributing to the creation of a modern and responsive user interface for improved user interactions and overall system functionality.
- Led the development of Eastlink's Talent Hunt acquisition app, focusing on robust web scraping for data processing. Utilized **Spring** framework and **PostgreSQL** to implement advanced features, including intricate data filtration and comprehensive visualization. Ensured seamless integration of complex functionalities through skillful use of Spring libraries and dependencies.
- Implemented **RESTful APIs**, ensuring smooth data exchange and efficient communication between web applications and external services.

Application Developer - Python.   **January 2019 — December 2019**
Thompson Reuters Inc.   *Toronto, Ontario*

- **Technologies used: Django**, **Angular**.
- Successfully contributed to the development of web applications and services, utilizing a full-stack approach with expertise in **Django** for back-end development and Angular, D3, and Bootstrap for front-end implementation.
- Played a key role in integrating **Amazon Web Services** (AWS) into the company's software ecosystem, ensuring efficient deployment and scalability of applications and services.
- Demonstrated strong Unix/Linux knowledge for effective system administration, scripting, and server management, contributing to the stability and reliability of software systems.

References will be provided on request.

EDUCATION

Bachelor of Science in Computer Science and Engineering, *American International University-Bangladesh.* **September 2018**

ACTIVITIES

- **Publication: A Deep Neural Network-based Communication Failure Prediction Scheme in 5G RAN.**
  DOI:10.1109/TNSM.2022.3229658.