Ariful Islam, Msc (He/Him)

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Email

Objective

Highly experienced Research and Development Engineer with a strong background in problem solving, solution research, and application development. Skilled in programming languages such as Python, Java, C++ and C#. Expertise in CI/CD tools like Jenkins. Well-versed in RDBMS, SQLs. I have an excellent experience and motivation for working in a collaborative environment.

Skills

- **Programming Languages:** Python, C++, C#, Javascript and (HTML5, Css, Sass)
- **Frameworks:** Django, Spring, React, Angular.
- **Architecture and Stacks:** Microservices, MVC, n-tier, MVVM, MEAN, MERN, Figma.
- **Cloud Services:** DevOps on AWS , Cloud9, Lambda, S3.
- **CI/CD Tools:** Familiarity in using Jenkins for implementing robust CI/CD pipelines.
- **RDBMS and Databases:** Expertise in relational databases, MySQL, Tomcat, MongoDB, PL/ SQLs and similar efficient data management techniques.
- **Source Control Tools:** Proficient in using Git for version control as well as maven, gradle for source control and collaborative development.
- **Development Methodologies:** Agile Development, JIRA, SDLC.

Experiences

Software Design and Development Engineer, 09/2022 - 07/2023

YuJa Inc.

- 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.
- 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
- Spearheaded DevOps initiatives on AWS, demonstrating proficiency in cloud infrastructure management. Leveraged AWS Cloud for streamlined development, fostering a collaborative and efficient coding environment.

AI/ ML Associate Research Engineer, 09/2019 - 04/2022

PiNET Lab - Dalhousie University.

- Worked and trained under the supervision of Dr.Israat Haque, Professor, Computer Science, Dalhousie.
- 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)

- Conducted through research and developed a security measure for the organizational computer research lab using deep learning technologies (ConV NN, PCA, IF).
- Pioneered the development of a generative networking model, employing advanced techniques such as Component Analysis, Exploratory Data Analysis (EDA), and Data Mining to uncover insights and patterns in network data.
- Maximized the accuracy of the detection model from 85% to 94% for potential security issues by meticulously fine-tuning and optimizing multiple deep learning models for cyber-security applications.

ML Software Engineer, 01/2020 - 12/2020

National Research Council, Canada.

- Conducted full life-cycle web application development (Agile) in multiple front end and backend frameworks like React native and Django.
- Leveraged Django's built-in features and third-party libraries to streamline development processes and enhance the functionality of web applications.
- Utilized JIRA as the primary pm tool by overseeing and coordinating tasks, timeline management and team collaboration throughout the development cycle.
- Designed and developed a robust Security API application for the internal NRC project, utilizing Python to create a secure and efficient interface. Implemented advanced security measures and protocols through APIs to enhance the organization's cybersecurity infrastructure.
- Implemented RESTful APIs, ensuring smooth data exchange and efficient communication between web applications and external services.

Application Developer , 01/2018 - 07/2019

Naztech Inc.

- Collaborated in the development of a React application seamlessly integrated with a Django backend system at Naztech, contributing to the creation of a modern and responsive user interface for improved user interactions and overall system functionality.
- 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.

Education and Training

Master of Applied Science in Computer Science (Research Based Program)
Dalhousie University - Halifax, Canada , 04/2022.

Activities and Honors

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

Certifications

- Advanced Python and Django development course, CISCO. Id: 149023 (120 hours).
- Modern Javascripts : ES6, Coursera. Id: XQBG7L5NGUH2 (40 hours).
- DevOps on AWS (Specialization), Coursera. Id: 2WV4ATZWVGRM (120 hours).
- Getting started with JIRA, Coursera. Id: WJSMSJRZURNH (10 hours).
- Algorithm Specialization, Coursera. Id: AYGNLOKJRFSD (200 hours)