Ariful Islam, Msc (He/Him)

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Objective

Highly experienced Research and Development Engineer with a strong background in competitive problem solving, optimized solution R & D, 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, React, .Net , Jquery, Springboot, Vue.
- **Tools** : Pycharm, Visual Studio, Asana, TeamSupport, JIRA, Figma, Slack, Office 365.
- **Architecture and Stacks:** Microservices (Docker, Prometheus), MVVM, MEAN, MERN.
- **Cloud Services:** DevOps on AWS , Cloud9, Lambda, S3.
- **CI/CD Tools:** Jenkins, CircleCI.
- **RDBMS and Databases:** Expertise in relational databases, MySQL, MSSQL, Tomcat, MongoDB, PL/SQLs.
- **Source Control Tools:** Proficient in using Git (GitHub, GitLab, BitBucket) for version control
- **Development Methodologies:** Agile Development, JIRA, SDLC.

Experiences

Software Design and Development Engineer (Full-Time),   09/2022 – 2/2024
[YuJa Inc.](#)

- Developed multiple headline features (Screen Capture, Performance Monitor) for the in-house developed product Yuja Enterprise Video Platform (EVP), a widely used educational tool by 100+ universities in USA and Canada.
- Worked on MVVM stack and implemented improved video streaming technology, and smarter video conferencing utilizing updated media libraries such as Media Foundation, and DirectShow written in C++ and implemented in C# project.
- Designed and developed the new multi-screen feature for the YuJa Screen Capture (YSC), a widely used ed-tech desktop application that captures multiple lecture notes and student performances and meets the university's requirements utilizing C# as well as optimizing the existing product architecture
- Worked as a crucial developer on Himalayas- a project to reduce storage costs for the Enterprise Video Platform (EVP); designed and implemented archival tools with rich functionalities leveraging Amazon's low-cost storage (Glacier); identified inefficiencies in storage usage to bring down costs by 60-70%.
- Improved code efficiency by 40% through rigorous code reviews and performance optimization.
- Worked with DevOps on AWS, utilizing EC2 (Auto-scaling), Code pipeline to automate the integration and delivery.

Research Assistant (Full-Time),   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

Portfolio   Linkedin   Github

- Performed extensive research and developed a predictive analytics solution for cellular network RF using deep learning technologies (i.e., PCA, LSTM, Autoencoder). The work is published in reputed conference.
- 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.

Software Engineer (Contract Full-Time),   01/2020 – 12/2020
National Research Council, Canada.

- Designed and developed a robust Security API application for the LNAL Lab, California, utilizing Python to create a secure and efficient interface.
- Implemented advanced security measures and protocols through APIs, utilizing tools like OAuth2, JWT and AES-256 to enhance the organization's cybersecurity infrastructure.
- Refactored highly integrated subsystems, such as profile management, disconnected device recovery, and a C# VSTO PowerPoint add-in (with a pipe for IPC), yielding enhanced code reliability, performance, and readability.
- Optimized the session verification process, reducing the time required from 60000 ms to just 10 ms by implementing a more efficient algorithm that compared only essential values.
- Utilized JIRA as the primary pm tool by overseeing and coordinating tasks, timeline management and team collaboration throughout the development cycle.
- Utilized CircleCI to automate the CI/CD pipeline, improving deployment efficiency and reducing integration errors by at least 40%.
- Implemented RESTful APIs, ensuring smooth data exchange and efficient communication between web applications and external services.

Jr Software Developer (Full – Time) ,   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.
- Conducted an in-depth analysis of the existing codebase, leading to a remarkable 50%-60% improvement in the efficiency of the product's login process.
- Quickly immersed in three diverse internal projects within just three months of joining the team, demonstrating adaptability and effective multitasking.
- 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
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).
- Algorithm Specialization, Coursera. Id: AYGNLOKJRFSD (100 hours)
- DevOps on AWS (Specialization), Coursera. Id: 2WV4ATZWVGRM (120 hours).