ASIF IQBAL RAHAMAN

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Computer Science Graduate student with 3+ years of experience in Software Development industry and a year of experience in building software for academic research, looking for full-time opportunity starting June, 2024.

SKILLS

Programming: Python, Rust, Javascript, SQL, Bash, HTML, CSS, C++, Java, VueJS
Frameworks: Flask, FastAPI, RestAPI, Pandas, Numpy, AWS-CDK, PyTorch, PyautoGUI, Seaborn, OpenCV
Tools: Git, Jenkins, Docker, Unix, Nginx, Supervisor, MySQL, MongoDB, Amazon Web Services (AWS)

EDUCATION

VIRGINIA TECH - BLACKSBURG, US
Master of Engineering in **Computer Science**   **Aug 2022 - May 2024 (Exp.)**
- **Courses:** AI Tools for Software Delivery, Info Security, Natural Language Processing, Data Analysis, Applications of ML

VIT UNIVERSITY - VELLORE, IN
Bachelor of Technology in **Computer Science**   **Aug 2015 - Jun 2019**
- **Courses:** Data Structure & Algorithms, Operating System, Software Development, Deep Learning, Internet of Things

EXPERIENCE

DEPARTMENT OF COMPUTATIONAL CELL BIOLOGY, VIRGINIA TECH - BLACKSBURG, US
Software Developer   **Oct 2021 - present**
- Designed an automated simulation of cell cycle with boolean model of protein interactions in mammalian and yeast cells.
- Achieved nearly **5x faster** model perturbation analysis using parallel processing and algorithm optimization on the ARC@VT supercomputer for automated improvement of exponentially growing (approx 16M interactions) cell interaction models.
- Preprint of the research work is available at biorxiv.org/content/10.1101/2023.10.30.564745v1

SECLORE TECHNOLOGIES PVT. LTD. - MUMBAI, IN
Product Engineer   **Dec 2021 - Jul 2022**
- Developed DevOps automation with AWS-CDK that deployed the data security solution of Seclore on cloud for each client in few hours in a fully managed AWS architecture. This reduced customer onboarding time from **several days** to **few hours**.
- Implemented individual customer infrastructure as code that created AWS Cloudformation stack to manage individual clients.
- Worked with a team of 3 in agile principal to develop the initial draft of the framework within 4 months.

ERICSSON GLOBAL INDIA PVT. LTD. - BANGALORE, IN
Software Engineer   **Jan 2019 - Jul 2021**
- Implemented rule-based recommendation engine to automate analysis of network cell performance for multiple telco clients.
- Constructed a system with APIs to automatically fetch data from datalakes to be used in the recommendation engine.
- Developed custom RPA Framework to automate network management tools by identifying elements and performing actions.
- Integrated this RPA framework with company's existing automation platform, BotStore using internal APIs.
- Achieved automation gain with recommendation engine about **36%** and with RPA framework about **35%**.

PROJECTS

Personal Website with FastAPI, AWS and Nginx   **Jan 2024**
- Developed using FastAPI and Jinja2 template framework with Python. Also used JavaScript to detect and apply dark theme.
- Deployed the website in AWS instance and configured Nginx proxy server to route traffic from the URL asifiqbal.xyz.

EEG Signal to Text Extraction   **Nov 2023**
- Reproduced the research of Wang, Ji et al to convert EEG signal to text tokens by fine-tuning BART model with custom data.
- Implemented zero-shot algorithm in PyTorch to classify the generated texts for verifying sentiment analysis of EEG signals.

Multiple Object Tracking using FairMOT and GAN   **Dec 2023**
- Constructed a novel architecture for object tracking using FairMOT and GAN (Generative Adversarial Network).
- Demonstrated that using generator in a separate layer in the architecture makes the overall performance of tracking worse.

CERTIFICATIONS & AWARDS

Python for Data Science and Machine Learning Bootcamp   Udemy Certificate - May 2021
Improving Deep Network: Hyperparameter Tuning, Regularization & Optimization   Coursera Certificate - Jul 2020
Neural Networks and Deep Learning   Coursera Certificate - Jan 2020

Bi-annual Galactic Award from Ericsson (2020) for achieving outstanding business excellence with automation framework.