

# Asif Iqbal Rahaman

LinkedIn: [linkedin.com/in/asif-iqbal-r/](https://www.linkedin.com/in/asif-iqbal-r/)

Github: [github.com/asif256000](https://github.com/asif256000)

Email: [asif256000+job@gmail.com](mailto:asif256000+job@gmail.com)

Mobile: +1(336)223-2730

Personal Website: [asifiqbal.xyz](https://asifiqbal.xyz)

## EDUCATION

- **Virginia Polytechnic Institute and State University (Virginia Tech)** Blacksburg, US  
*Masters in Engineering - Computer Science; Curr. CGPA: 3.9* August 2022 - May 2024 (Expected)  
*Courses:* Information Security, AI for Software Development, Data Analysis, Machine Learning, NLP, Computer Vision
- **Vellore Institute of Technology** Vellore, India  
*Bachelor of Technology - Computer Science (minor - Bioinformatics); CGPA: 7.92* July 2015 - June 2019  
*Courses:* Data Structure & Algorithms, AI, ML, DBMS, OS, Analytical Bioinformatics, Software Development, Deep Learning

## SKILLS SUMMARY

- **Programming:** Python, SQL, Rust, C++, Bash, JavaScript
- **Frameworks:** flask, win32, pandas, numpy, AWS-CDK, scikit, matplotlib, seaborn, pillow, pyautogui, pytorch, opencv
- **Tools:** Git, Jenkins, Subversion, MySQL, SQLite, MongoDB, DynamoDb, Docker, Parquet, RestAPI
- **Platforms:** Mac, Windows, Amazon Web Services (AWS), Linux, Web, Arduino, Heroku

## EXPERIENCE

- **Virginia Tech - Department of Computational Cell Biology** Blacksburg, US  
*Student Data Analyst* Oct 2022 - Present
  - **Initial Idea:** Simulate cell cycle for boolean model of cancerous cells and identify nodes that improve or hinder their growth.
  - **Cell Cycle Interaction Model:** Currently we analyse interaction data of all perturbations of the model, validate them from database (wherever applicable), and simulate them in parallel to identify the nodes that improve the performance.
  - **Preprint:** Current manuscript available at [biorxiv.org/content/10.1101/2023.10.30.564745v1](https://www.biorxiv.org/content/10.1101/2023.10.30.564745v1)
- **Seclore Technology Pvt Ltd** Mumbai, India  
*Product Engineer* Dec 2021 - Jul 2022
  - **Cloud automation:** Developed DevOps automation that was able to deploy complete product for a client in less than an hour in a fully managed and scalable AWS architecture. This decreased customer onboarding time from several days to few hours.
  - **Customer Infra Stack Codification:** Implemented individual customer infrastructure as a AWS Cloudformation stack via aws-cdk and pynamodb modules in Python.
  - **Collaboration:** Team of 3 worked with Subversion in an agile environment to develop the cloud automation.
- **Ericsson Global India Pvt Ltd** Bangalore, India  
*Software Developer* Jan 2019 - Jul 2021
  - **Surface Automation Framework:** Worked on development of custom RPA framework that helped automate various network management tools. Automation gain with RPA framework reached 35% per month.
  - **Rule-based Data Analysis Engine:** Developed rule-based recommendation and data analysis engine that calculates lists of high-impact network cells. The data analysis engine worked on large network data (10M rows and 5K cols, approx 30GB parquet file) on a daily basis for about 20 clients in less than 4 hours with a few parallel processing.
  - **Impact:** With the rule-based recommendation & root cause analysis system automation gain reached 36% per month.
  - **Other projects:** Integrated the custom RPA framework with existing automation platform. Also developed a system to fetch large amount of network data to local system via API, cleaned them and stored them as parquet files.

## PROJECTS

- **Multi-Object Tracking using GAN with FairMOT:** Increasing efficiency and/ or accuracy in the field of multiple object detection and tracking using Generator from GAN with FairMOT and using Discriminator as a separate block in the architecture.
- **EEG-to-Text with Relation Extraction:** Converting EEG encoding and eye-tracking to text and extract relationships between them using Multi-Layer Transformer Encoder and single layer feed-forward networks.

## CERTIFICATIONS

**Python for Data Science and Machine Learning Bootcamp, Neural Networks and Deep Learning, Improving Deep Neural Network: Hyperparameter Tuning, Regularization and Optimization**

## HONORS AND AWARDS

- **Galactic Award, Ericsson Global India Pvt Ltd (bi-annual award, 2020):** For contribution to achieve outstanding business excellence with data automation framework (Reduced 35% man-hours with the data automation).

## INTERESTS

- **Work:** Automation, Cloud Technologies, Data Analysis, Intelligent Web and Software Development
- **Research:** Artificial Intelligence, Natural Language Processing, Machine Learning in real-world scenarios
- **Reading:** Technology related blogs; Recent developments in Python, Rust and other languages and frameworks
- **Other:** Photography, Soccer, Table Tennis, Fiction and Non-fiction novels