# MD. ATIQUR RAHMAN

📞 (+880) 1521438672  ✉ atiqur.rahman0041@gmail.com  in /atiqurrahman041  ⊙ /atiqur-rahman-0041

## RESEARCH INTEREST

Computer Security, Software Engineering, Applied Machine Learning, Application of Large Language Models

## EDUCATION

**Bangladesh University of Engineering and Technology**                         Feb 2017 - May 2022
*B.Sc in Computer Science and Engineering*

- **CGPA**: 3.69/4.00
- **CGPA in Last 4 Terms**: 3.86/4.00

**Notre Dame College**                                                                                    2014 - 2016
*Higher Secondary Certificate*

- **GPA**: 5:00/5:00

**Government Laboratory High School & College**                                            2014
*Secondary School Certificate*

- **GPA**: 5:00/5:00

## PUBLICATIONS

**Cri-Astrologer: Predicting Demography of Involved Criminals based on Historical Data**

NSysS '22: Proceedings of the 9th International Conference on Networking, Systems and Security          December 2022

- Undergraduate Thesis
- **Field**: Computational Criminology
- **Supervised by**: A. B. M. Alim Al Islam
- **Methods**: Data Analysis and Preprocessing, Feature Engineering, Exploration of Open-source Deep Learning Algorithms

## WORK EXPERIENCE

**IQVIA**                                                                                                   May 2022 - Present
*Software Engineer, Tech Analytics*

- Worked on different database systems like MSSQL, Postgress, Snowflake, Firebolt, Oracle, MongoDB and Amazon Redshift.
- Worked with various cloud services, including Kubernetes, Azure, and AWS.
- Led research and development efforts to enhance database query performance, reduce query counts, and explore cost-efficient solutions.
- **Currently engaged in an R&D project aimed at revolutionizing user interactions with data visualization. The aim of this project is to simplify complex dashboard configurations by integrating large language models (LLMs) into the user interface.**

## RESEARCH EXPERIENCE

**Generative-AI Enhanced Data Visualization**                                             June 2023 - Current

- Explored various large language models including GPT, Llama and Mistral.
- Worked with different AWS service such as Amazon Lex, Amazon Sagemaker and AWS Lambda.
- Explored different streaming techniques, pattern matching and fuzzy matching techniques for optimization.

## Personal Projects

**DNS NXDOMAIN FLood Attack** | C, Wireshark, Oracle VM VirtualBox

*Computer Security*     Project Link

- Implemented an NXDOMAIN Flood attack on DNS servers using non-existent or invalid domain names.
- Implented a defense mechanism in order to prevent NXDOMAIN Flood attacks.

**Traan-Chitro** | VueJS, NodeJS, MongoDB

*Voluntary Project, Web Development*     Project Link

- Developed a web-based relief coordination platform for non-government relief organizations in the COVID pandemic period so that those organizations can reach out to more people in need.

**E-luxurious** | VueJS, NodeJS, MongoDB

*Web Development*     Project Link

- Developed a web-based property renting platform which had similar functionalities to Airbnb.

**MAD360 - Media Development Tool** | ReactJS, Django, Postgres

*Funded Project, Software Development*

- Developed a web-based experimental advertisement budget management system funded by Unilever which is supposed to reduce about 60% of the manual labor done before.
- Used python based mathematical modules to calculate complex budget quantities more accurately and faster than before.

**Line of Action** | Java, Slick2D

*Game, Artificial Intelligence*     Project Link

- Used minimax & heuristic algorithms to find optimal moves for AI by implementing a Line of Action game with AI vs Human and Human vs Human playing options.

## Technical Skills

| | |
|---|---|
| **Programming Languages** | C, C++, C#, JAVA, Python, JavaScript |
| **Programming Frameworks** | Django, .NET, NodeJS |
| **Database Systems** | MSSQL, Postgres, Oracle, Snowflake, Firebolt, Redshift, MongoDB |
| **Libraries** | OpenGL, Numpy, Pandas, Scikit-learn, Keras, OpenCV |
| **Cloud Platforms** | AWS, Azure, Heroku, GCP |
| **Tools** | Git, LaTeX, Docker, Kubernetes |

## Language proficiency Test Score

| | | |
|---|---|---|
| **IELTS** | 8 (Listening: 8.5, Reading: 8.5, Writing: 7, Speaking: 7) | Oct 2023 |

## Graduate Standardized Test Score

| | | |
|---|---|---|
| **GRE** | 314 (Quant: 162, Verbal: 152) | Oct 2023 |

## Awards and Achievements

| | |
|---|---|
| **Platinum Tier Award, IQVIA Impact Program** | 2023 |
| **Dean's List, BUET** | Last 4 terms of undergraduate program |
| **Champion - Industrial Automation Challenge v2.0, BUET** | 2017 |

## Certificates

| | | |
|---|---|---|
| **Deep Learning Specialization** | deeplearning.ai - Coursera | Course Certificate |
| **Fundamental of GIS** | UCDAVIS | Course Certificate |
| **GIS Data Formats, Design, and Quality** | UCDAVIS | Course Certificate |