# **MD SAKIB RAHMAN**

# Software Engineer

Dynamic Software Engineer with 5+ years of experience in Web/API development, cloud solutions, and automation. Skilled in full-stack development, DevOps, CI/CD, and debugging. Proven ability to design scalable, high-performance systems and deliver secure, maintainable software that drives business success.



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# **Relevant Experience**

#### **Software Engineer III**

Mediusware Ltd. | Dhaka, Bangladesh | Nov 2024 - Current

- Designed scalable backends with FastAPI, Django, and PostgreSQL improved throughput by 50%.
- Set technical direction and mentored engineers through reviews and workshops.
- Built APIs handling 1M+ daily requests with 99.9% uptime, cut downtime 70% via microservices.
- Led backend improvements, boosting performance by 40% and ensuring on-time delivery.
- Reduced deployment time by 60% using Docker and GitHub Actions CI/CD.
- Automated infra with and added observability via Prometheus and Grafana; cut MTTR by 40%.
- Enhanced security, profiled code, and improved response consistency by 35%.
- Led a team of 5 aligned tech with business goals and promoted DevOps practices.

#### **Software Engineer**

FatCoupon Inc. | Shanghai, China | Jul 2024 - Mar 2024

- Built backend services for coupon scraping using Python and headless automation tools.
- Developed a Chrome extension to auto-apply coupons at checkout on major e-commerce sites.
- Improved scraping accuracy by 45% with better DOM targeting and error handling.
- Integrated logging and monitoring via Sentry and dashboards to track coupon validity.
- Maintained adaptive scraping rules to handle frequent site structure changes.
- Reduced manual QA by 70% with automated scripts and monitoring dashboards.

#### **Software Development Engineer**

Talent Pro | Dhaka, Bangladesh | Jun 2022 - Oct 2022

- Translated complex business requirements into clear, actionable technical specifications.
- Developed scalable RESTful APIs using FastAPI and Flask with comprehensive documentation.
- Accelerated backend delivery timelines by 30% through optimized workflows and communication.
- Deployed cloud services on AWS and enabled real-time monitoring with the Elastic Stack.
- Enhanced communication between business and tech teams using standardized practices.

#### **Software Engineer**

Worklife Inc. | Dhaka, Bangladesh | Jun 2021 - Dec 2022

- Built data pipelines for ML-based performance review with tailored employee feedback.
- Reduced database load by 30% through Redis caching, indexing, and query optimization.
- Integrated ML logic with Diango REST APIs for personalized performance insights.
- Deployed and maintained backend on AWS EC2 and S3, ensuring 99.9% uptime.
- Streamlined processing of large datasets with minimal latency and high reliability.

#### **Software Engineer**

mPower Social Limited | Dhaka, Bangladesh | Jan 2018 - May 2021

- Designed and implemented Django-based backend with REST APIs.
- Built a real-time data filtering and visualization engine handling millions of records efficiently.
- Created user-friendly web interfaces to visualize database metrics for non-technical stakeholders.
- Reduced query response time by 45% through indexing and optimized filtering logic.
- Scaled data systems and improved engagement by 60% via enhanced visibility and usability.

#### Skills

- Programming Languages: Python, JavaScript, TypeScript, Java, Bash
- Libraries and Frameworks: Django, Flask, React, Next.js, GraphQL, FastAPI, Tailwind, jQuery
- ML Frameworks: Keras, TensorFlow, Pytorch, Hugging Face Transformers, LangChain
- Databases: PostgreSQL, MySQL, MongoDB, SQLite, Redis, Firebase, DynamoDB, ClickHouse
- Tools: Git, Selenium, Trello, JIRA, Appium, BrowserStack, Figma, VS Code
- Cloud & DevOps: AWS, Docker, Kubernetes, Terraform, Ansible, CI/CD, Prometheus, Helm
- Operating Systems: Linux, MacOS

# **Projects**

#### WikiSearch

- Developed a search engine using a dump dataset from Wikipedia, integrating three indexing methods and a binary index for fuzzy search and wildcard queries.
- Implemented five ranking methods to evaluate the accuracy of search results, and provided a user interface for testing and demonstration purposes.
- Trained a classifier using the data, and utilized a DNN model to improve search accuracy by 90%.
- Project URL: https://github.com/rsakib15/WikiSearch

#### Single Image Super-Resolution with A Dense Projection Networks

- Proposed DPCNN, a deep learning-based method for single-image super-resolution.
- Extended the network to handle three color channels, achieving high-quality restoration.
- The proposed network excels over other state-of-the-art methods, especially for large scale factors like 8X magnification.
- Project URL: https://github.com/rsakib15/DIP-Super-Resolution

#### **Chinese License Plate Recognition**

- Accurately identifies Chinese license plates using traditional and deep learning methods.
- Utilizing multiple methods such as binary image conversion, contour analysis, and perspective transformation to achieve accurate recognition of Chinese license plates.
- Combines deep learning and template matching for enhanced Chinese license plate recognition.
- Project URL: https://github.com/rsakib15/Chinese-License-Plate-Recognition

#### **Automated Bangla Newspaper Crawler**

- Developed an automated crawler in Python utilizing web scraping libraries like BeautifulSoup and requests to systematically gather news articles from Bangladeshi newspapers.
- Project URL: https://github.com/rsakib15/Bangla-Newspaper-Scraper

#### **Education**

 MSc in Computer Science and Technology Shanghai Jiao Tong University 2020-2023 | Shanghai, China CGPA: 3.59 out of 4.00 BSc in Computer Science and Engineering
 American International University - Bangladesh
 2013-2018 | Dhaka, Bangladesh
 CGPA: 3.95 out of 4.00

# **Honors & Awards**

- Represented and received the Solve Award from the Massachusetts Institute of Technology.
- Placed 2nd and 3rd in the AIUB intra Programming Contest in 2015 and 2016, respectively.
- Secured 3rd place in the IUT ICT Olympiad 2015 and 2nd place in 2017.
- Participated in ACM NCPC 2016 & 2017.
- Won 2nd place in AIUB's 2017 HCI Prototyping Contest for a Smart Campus concept.
- Received Chinese Government Scholarship

## **Research Works**

- Attention-based sequence to sequence English to Bangla (E2B) Machine Translation using Neural Networks and Deep Learning
- Learned Index framework for faster time series indexing on IoT devices.
- A Hybrid Deep Learning model for Encrypted Network Traffic classification
- Automatic wound segmentation with deep convolutional neural networks

## **Research Interests**

- Natural Language Processing
- Big Data
- Computer Vision

## Languages

- English Fluent
- Bangla Native
- Chinese Conversational

# **Hobbies**

- Travel & exploring cultures
- Reading tech and fiction
- Photography

# References

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