

# Sakib Rahman

## Software Engineer

Experienced Software Engineer with 3 years of experience in designing and implementing innovative cloud solutions, along with expertise in Web/API Development, Automation, Scripting, Debugging, and cross-functional collaboration. Demonstrated ability to quickly learn and adapt to new technologies.

✉ sakibrahman@sjtu.edu.cn

☎ +8801674333517

in sakibrahman



rsakib15

## Relevant Experience

### Software Development Engineer at FatCoupon

July 2023 - March 2024 | Shanghai, China

- ▶ Automated coupon scraping process, boosting efficiency and accuracy in obtaining discount information, ultimately enhancing the company's competitiveness and customer attraction.
- ▶ Automated coupon application across e-commerce platforms via a Google Chrome extension.
- ▶ Contributed significantly to the development and meticulous execution of quality assurance processes to steadfastly uphold product integrity, reliability, and excellence.

### Software Developer at Talent Pro

June 2022 - October 2022 | Dhaka, Bangladesh

- ▶ Translated business requirements into technical specifications, facilitating seamless coordination among management, sales, marketing, and development teams.
- ▶ Built high-performance APIs using FastAPI and Flask, adhering to industry best practices.
- ▶ Coordinated and collaborated with team members to ensure efficient project completion.
- ▶ Collaborated with the Infrastructure team to deploy & monitor services on AWS and Elastic Stack.

### Software Engineer at Worklife

June 2021 - December 2021 | Dhaka, Bangladesh

- ▶ Built a data extraction and processing system for a machine learning-based performance review automation tool, providing tailored feedback on employees work.
- ▶ Reduce the database load by 30% by introducing the Redis cache, query optimization & indexing.
- ▶ Deployed server and managed platform infrastructure using AWS, such as setting up EC2 instances and configuring S3 storage for scalable and reliable application hosting.

### Software Engineer at mPower Social Limited (D2)

January 2018 - May 2021 | Dhaka, Bangladesh

- ▶ Designed and implemented Django-based backend for interactive web applications, integrating new functions via REST API to enhance monitoring system functionality and user experience.
- ▶ Created user-friendly web interface to visualize database info, enhancing stakeholder accessibility.
- ▶ Engineered a real-time data filtering and visualization mechanism capable of handling millions of records with minimal resource consumption.

## Skills

**Programming Languages:** Python, JavaScript, TypeScript, Solidity

**Libraries and Frameworks:** Django, Flask, React, Next.js, NodeJS, GraphQL, FastAPI

**ML Frameworks:** Keras, TensorFlow, Pytorch

**Databases:** PostgreSQL, MySQL, MongoDB

**Tools:** Git, Selenium, Trello, JIRA, Appium, BrowserStack

**Cloud Technologies:** Docker, Jenkins, Kubernetes, AWS, Azure

**Operating Systems:** Linux, Windows

## 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

### Shanghai Jiao Tong University

2020-2023 | Shanghai, China

Master in Computer Science and Technology  
CGPA: 3.59/4.00

### American International University - Bangladesh

2013-2018 | Dhaka, Bangladesh

Bachelor in Computer Science and Engineering  
CGPA: 3.95/4.00

### Northeast Normal University

2013-2014 | Changchun, China

Chinese Language Program

Passed Chinese HSK Exam Level 4

## Honors & Awards

- ▶ Represented D2 and received the Solve Award from the Massachusetts Institute of Technology (MIT).  
Solve Link: <https://tinyurl.com/d2mitsolve>
- ▶ 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 NCPCC 2016 & 2017.
- ▶ Secured 2nd place in the 2017 HCI Prototyping Contest for developing a Smart Campus Concept at AIUB.
- ▶ Received Chinese Government Scholarship

## Research Works

- ▶ Attention-based sequence to sequence English to Bangla (E2B) Machine Translation using Neural Networks and Deep Learning
- ▶ A framework for Learned Indexes for IoT Devices to improve Time Series data Indexing Performance
- ▶ A Hybrid Deep Learning model for Encrypted Network Traffic classification
- ▶ Automatic wound segmentation with deep convolutional neural networks

## Research Interests

- ▶ Natural Language Processing
- ▶ Blockchain
- ▶ Big Data
- ▶ Computer Vision

## Language

- ▶ English - Fluent
- ▶ Chinese, Hindi - Conversational
- ▶ Bengali - Native

## Hobbies

- ▶ Exploring diverse cultures and landscapes
- ▶ Reading novels and books on technology
- ▶ Photography

## References

### Yao Shen

Assistant Professor, SJTU

Email: [yshen@cs.sjtu.edu.cn](mailto:yshen@cs.sjtu.edu.cn)