

# MD Sohail Mahmud

GitHub: sohailmahmud | LinkedIn: sohailmahmud

Email: sohailmahmud@gmail.com | Address: 1207 Mohammadpur, Dhaka, Bangladesh | Mobile: +880 1624340883

## TECHNICAL SKILLS

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- **Programming Languages:** JavaScript, PHP, C++, Java, Python, Dart, Solidity, Bash
- **Technologies and Frameworks:** Node.js, Laravel, Flutter, Express.js, Web3.js, GraphQL, SKLearn, OpenCV, PyTorch
- **Deployment, Cloud and Version Control:** Docker, K8s, Terraform, Jenkins, Gradle, AWS, Git
- **Project Management:** NPM, Yarn, Jira, Notion, OOD, TDD
- **Database, Big data and ETL:** MySQL, MSSQL, Amazon RDS, MongoDB, Redis, Hive, Hadoop, Spark, Ab Initio

## PROFESSIONAL EXPERIENCE

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### ProHealth

January 2022 – Present

#### Software Engineer

Dhaka, Bangladesh

- Responsible for designing and building a robust, scalable monitoring platform to effectively visualize metrics for the Ecosystem. Developed a workflow to process incoming metrics, extract relevant data, and generate visualizations.
- Performed experiments on Cross-platform tools technologies, Amazon RDS, MSSQL, Redis and PostgreSQL databases to identify scalability and costs suited to application. Engineered PostgreSQL to store historical log of events.
- Built end-to-end CI/CD workflow for cross-platform application and automated the batch data engineering jobs using Docker, Jenkins and Unix Scripts. Developed graphs using AbInitio on Hadoop environment for data extraction tasks.

### Extreme Solutions

November 2020 – December 2022

#### Software Engineer

Chattogram, Bangladesh

- Responsible for designing and developing both greenfield and brownfield cross-platform applications using technologies such as Node.js, Express.js, Flutter, AWS, and Docker.
- Performed experiments on code to ensure it meets industry standards, is valid, is properly structured, and is compatible with cross or native devices, or operating systems.
- Consumed design patterns to follow code design practices. Containerized application code using Docker for deployment.

### Cynergy Solutions

January 2019 - October 2020

#### Full Stack Developer

Full-time Remote

- Responsible for building business applications using predictive time series analysis for consumers.
- Performed migrations on existing tabular insights into analytical dashboards for business applications. The migration resulted in 2x faster response time and 10x less load time on the application server.
- Built end-to-end CI/CD workflow for web application and automated the batch data engineering jobs using Docker, Jenkins and Unix Scripts.

### Automate InfoSys

January 2018 - December 2018

#### Web Application Developer

Chattogram, Bangladesh

- Responsible for designing and developing both greenfield and brownfield web applications across various platforms using technologies such as Laravel, Node.js, and Express.js.
- Performed experiments on code to ensure it meets industry standards, is valid, is properly structured, and is compatible with browsers, devices, or operating systems
- Worked in an agile environment consisting of analyzing users and peer feedback on the submitted work.

### OTSL

August 2017 - December 2017

#### Software Developer Intern

Chattogram, Bangladesh

- Responsible for building web application using Oracle Apex for consumers that presents adverse effect reports for prescription drugs
- Designed the full architecture of the software stack in order to scale future Food and Drug Administration (FDA) data sets and user input
- Involved in weekly SCRUM meetings to keep track of the ongoing project status and issues

## EDUCATION

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### **BSc in Computer Science and Engineering** **University of Creative Technology**

January 2020 – December 2023(Expected)  
Chattogram, Bangladesh

- **Key Modules:** Advanced Data Structures and Algorithms, Web Programming, Mobile Application Development, Design Patterns, Programming Methodology, Human-Computer Interaction, Cloud Computing, Machine Learning, Blockchain

### **Diploma Engineering in Computer Technology** **Chittagong Polytechnic Institute**

November 2013 - December 2017  
Chattogram, Bangladesh

- **Key Modules:** Data Structures and Algorithms, OOP, Database System Design, Computer Architectures and Organizations, Operating Systems, Web Application Design and Development, Software Engineering, Computer Networks

## ACADEMIC PROJECTS

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### **imgEncrypt:** UCTC IQAC Project Fair | Python, Jupyter notebook

- A sophisticated image encryption system by using AES algorithm to prevent intrusion attacks of imaging systems and misuse of digital images.

### **posPro:** BTEB Project Fair | Java, C++, Python, MySQL, Machine Learning, Deep Learning, AWS

- Quickly finalize an order and have faster checkout processing and minimize the chance of human errors.
- Track goods with high accuracy and speed up Inventory management and constructing efficient classifier chains using a chain ordering algorithm.

### **LabM:** Diploma final year project | Laravel, JavaScript, NodeJS, MySQL, REST API's

- Admin side user can manage all the records. The admin plays an important role in the management of this system.
- User can manage transactions such as reservations, borrowed and returned items.

### **HRIS:** Diploma 3rd year project | Java Swing, MySQL, JasperReports

- A desktop application that allows any admin/organization to centralize all members' information and monitor employees, recruitment, hours worked, evaluations, vacations, and attendances from the same place.

## PERSONAL PROJECTS

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### **mChatBot:** AI-driven automation bot | JavaScript, NodeJS, Laravel, MySQL

### **webAR:** Augmented Reality Experiences | Laravel, JavaScript, PWA AR, MySQL

### **dMedico:** Cross-platform Blockchain-Based Healthcare Application that performs Data and Sentimental Analysis using Machine Learning Algorithms.

### **redID:** Cross-platform digital advertising agency | C++, NodeJS, Flutter, SQLite, Hive, AWS

### **Ekhon:** Multipurpose eServices platform (ongoing) | JavaScript, NodeJS, ExpressJS, Flutter, MySQL, SQLite, AWS, SSLCommerz

### **DataManager:** Data manager for storing and managing datasets | C++, Flutter, AWS

### **dMedico:** Cross-platform Blockchain Based Application | JavaScript, NodeJS, Laravel, Flutter, SQLite, MongoDB, AWS

### **Profolio:** An online multilingual portfolio builder application | JavaScript, NodeJS, Laravel, MySQL

### **dHost:** A blockchain-based web hosting system

### **AttestiFi:** A blockchain-based fake product identification system

## INDEPENDENT COURSEWORKS

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- AWS ML Foundations (offered by Udacity and AWS)
- Full Stack Development (offered by freeCodeCamp)
- Web Application Development (offered by BITM)
- Oracle Database Administration and Development (offered by OTSL)
- Big Data on Amazon Web Services (offered by Learnsector)
- C/C++, Java and Software Engineering Fundamentals (offered by BinaryCare)
- AWS for Solutions Architect Associates (offered by EdYoda Digital University)

## HOBBIES

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- Tinkering with Rubix Cube.
- Watching TED talks, attending conferences.

**References available upon request**