

# Md Magfur Alam

Senior Software Engineer

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## PROFESSIONAL SUMMARY

Full Stack Engineer with **6+ years** of experience building modern, scalable, and high-performance web applications. Expert in **React.js**, **Next.js**, and responsive UI design, with proven leadership in frontend teams and **GIS-driven solutions** for national platforms. Strong background in JavaScript, TypeScript, RESTful APIs, and performance optimization. Experienced in delivering large-scale solutions for government, enterprise, and AI-powered platforms.

## SKILLS

PROGRAMMING LANGUAGES:	JavaScript   TypeScript
FRAMEWORKS & LIBRARIES:	React.js   Next.js   Redux Toolkit   Tailwind CSS   Material UI   D3.js
BACKEND TECHNOLOGIES:	Node.js   Express.js
DATABASES:	PostgreSQL   MongoDB   PostGIS   MySQL   MSSQL
GIS & MAPPING:	OpenLayers   GeoServer   QGIS   ArcGIS
DEVOPS & TOOLS:	Git   GitHub   Docker   Bitbucket   Agile/Scrum   CI/CD (GitHub Actions, Jenkins)
TESTING & QUALITY:	Jest   React Testing Library   Cypress
OTHER TECHNOLOGIES:	REST APIs   Axios   Zustand

## PROFESSIONAL EXPERIENCE

### Senior Software Engineer

Tiller -Dhaka, Bangladesh | Dec 2020 – Present

- Led **frontend development** for national dashboards improving urban sanitation & planning in 329+ municipalities.
- Integrated GIS data with **OpenLayers & PostGIS** for dynamic, interactive map visualizations. Built scalable React UI components with **Redux Toolkit** and **TypeScript**, improving maintainability.
- Collaborated with DevOps on **Docker-based CI/CD** pipelines using Bitbucket.
- Mentored junior engineers and enforced coding best practices through code reviews.
- Improved frontend performance by **reducing render cycles & optimizing API calls**, improving load speed by ~30%.

### Junior Software Engineer

Peoples IT Solutions, Dhaka, Bangladesh | Jul 2019 – Nov 2020

- Developed secure, responsive web apps for **government agencies**.
- Built reusable React components and integrated RESTful APIs.
- Contributed to backend development with **Node.js** and **Express.js**.

## PROJECTS

### **PixiAI - AI-Powered Image & Video Platform** | *Lead Frontend Developer, Developer*

Next.js | TypeScript | Zustand | PostgreSQL | Spring Boot.

Developed AI-powered image/video generation platform from text prompts. Architected responsive UI and scalable state management.

 Live: [pixiai.net](https://pixiai.net)

### **PureSounds - AI-Powered Music Streaming Platform** | *Lead Frontend Developer, Developer*

Next.js | TypeScript | Zustand | PostgreSQL | Spring Boot.

Built AI music generation & streaming platform with seamless playback and modern UI.

 Live: <https://puresounds.cloud>

### **National Sanitation Dashboard – Bangladesh Govt.** | *Frontend Developer*

React.js | D3.js | Openlayers | Spring Boot | PostgreSQL | PostGIS | Geoserver.

Built a data-driven sanitation dashboard, improving nationwide sanitation tracking & SDG alignment.

 Live: <http://sanboard.gov.bd>

### **Planning Information System – Bangladesh Govt.** | *Frontend Developer*

React.js | Openlayers | Node.js | Express.js, | PostgreSQL | PostGIS | Geoserver.

Integrated climate risk data into public investment planning.

 Live: <http://plismap.plancomm.gov.bd>

## EDUCATION

**B.Sc. in Computer Science and Engineering** - Bangabandhu Sheikh Mujibur Rahman Science & Technology University, Gopalganj

**Thesis:** Cyber Security Knowledge Prediction Using Multiple Linear Regression

**Higher Secondary Certificate (HSC)** - Govt. Sundarban Adarsha College, Khulna, Bangladesh

**Secondary School Certificate (SSC)** - Saint Joseph's High School, Khulna, Bangladesh

## CERTIFICATIONS & TRAINING

- iOS App Development (ICT Division, Bangladesh) – 200 hours
- Finalist – NASA Space Apps Challenge 2016
- Participant – EATL Prothom Alo Apps Contest 2016

## PUBLICATIONS

- **ADASEML: Hospitalization Period Prediction of COVID-19 Patients – Springer**

 DOI:10.1007/978-3-031-28183-9\_1

- ***Crop-RecFIS: Machine Learning for Crop Recommendation – IEEE***  
 [DOI:10.1109/ICCCNT56998.2023.10307833](https://doi.org/10.1109/ICCCNT56998.2023.10307833)

## LEADERSHIP & VOLUNTEER EXPERIENCE

- Mentor for junior developers at Tiller
- Campus Ambassador – ESAB (Engineering Students' Association of Bangladesh)
- Volunteer – Bangladesh Science Society & NASA Space Apps Bangladesh

## REFERENCES

### **Mazharul Islam**

Lead Consultant, Tiller

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### **Muhammad Ahsan Iqbal**

Software Architect & Team Leader, Tiller

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