

# Shah Alvi Hossain *Experienced Fullstack Engineer*

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## SKILLS

**Programming Languages:** C, Java, JavaScript, TypeScript, Python, HTML, CSS, Java, SQL

**Frameworks and Others:** React JS, Express JS, Node JS, Servlet, Supabase, JQuery, Git

## PROFESSIONAL EXPERIENCE

### Lead Backend Engineer

02/2025 – Present | Remote - (Chicago Based)

Blok [🔗](#)

- Architected and maintained a TypeScript/Node.js backend with Express, modular routers, and strongly-typed DTOs/DAOs.
- Secured endpoints using JWT middleware and implemented role-based access patterns.
- Integrated real-time capabilities via SocketService for live notifications and event streaming.
- Documented APIs with Swagger/OpenAPI and maintained interactive API docs for internal teams.
- Implemented robust error handling and Sentry integration for automated alerting and performance tracing.
- Built reusable utilities (TryCatch, Query, Response) to streamline controller logic and reduce bugs.

### Open-Source Contributor\*

2024 – present | Dearborn, MI, United States

Non-Profit Software Development Group [🔗](#)

- Lead Frontend Engineer for dearborncodingclub.com [🔗](#), using React and TypeScript for responsive, reusable code.
- Assisted in backend division into an Authentication server (Go) and API server (Python); implemented JWT-based AuthService for frontend security.
- Developed universal providers and reusable UI components (cards, carousels, indicators, pagination, notifications) with TypeScript, JSX, and CSS.

### Full Stack Software Engineer

12/2022 – 05/2023

REVE Systems [🔗](#)

- Led the CMIS project, connecting front-end and back-end systems.
- Developed a digital signature solution for real-time document verification, now used by 58 officials.
- Linked the signature system to legacy platforms, speeding up processing of 25+ documents monthly.
- Conducted interactive training sessions with 50+ end users at The Parliament House of Bangladesh; feedback revealed an increase in operational efficiency.

### Software Engineer

07/2022 – 11/2022

Loosely Coupled Technologies [🔗](#)

- Integrated EZ Assist CRM with third-party API, reducing manual entry time.
- Rebuilt invoice system, cutting printing costs by 52%.
- Created UI components that improved navigation by 35% and boosted productivity.
- Updated features, reducing support inquiries within three months.

## EDUCATION

### Bachelor of Science in Computer Science and Engineering

05/2017 – 05/2022

NORTH SOUTH UNIVERSITY

**Course Work:** OOP, Data Structures and Algorithms, Database Design, Operating Systems, Web Technologies, Software Engineering, Machine Learning

## PROJECTS

### TSDAORM [🔗](#)

- TSDAORM is a Typescript based lightweight ORM for MySql.
- NPM Link: <https://www.npmjs.com/package/tsdaorm> [🔗](#)

### JIS CHROME EXTENSION [🔗](#)

<https://github.com/alvi1316/JIS-Chrome-Extension> [🔗](#)

- A chrome extention built with html, css, js, chrome api that scraps linkedin and indeed to help users to log job applications.

### WORDS [🔗](#)

*Tech Stack: PHP, JavaScript, JQuery, Bootstrap, HTML, CSS, MySQL*

- Engineered a comprehensive online reading and writing platform that incorporated social networking features.
- Established a ranking and badge system based on user activity that encouraged knowledge sharing among participants.

### NSUVMS [🔗](#)

*Tech Stack: PHP, JavaScript, HTML, CSS, MySQL*

- Web portal for NSU (North South University) students' vaccine data management.
- Created a user-friendly interface for administrators to seamlessly access and interpret visual data on vaccination status.

### KITS 19 CHALLENGE [🔗](#)

*Tech stack: Python, Pytorch*

- A machine learning solution for medical imaging in the Kits 19 Challenge; implemented U-Net and FCN methodologies to enhance kidney and tumor detection accuracy, achieving a dice coefficient of 0.8533.