# **Md Shirsho Dipto Haque**

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## ----Skills------

**Programming Languages**: HTML, CSS, Javascript, NodeJS, Python, C++ | **Frameworks**: ReactJS, ExpressJS | **Database**: MongoDB **Miscellaneous**: Git, Github, Redux, Webpack, Socket.io, Jest, Mapbox, Material UI, NumPy, Fly.io, Netlify, Google Cloud, Linux **Computer Science**: Data Structures and Algorithms, Systems Programming, Probability for Computer Scientists.

----Projects------

#### **Interactive Data Visualization Map**

JavaScript, HTML, CSS, Mapbox GL, Mapbox Studio

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- Developed an interactive map showcasing conflict zones and energy pipelines worldwide, revealing crucial geopolitical insights.
- Added rich interactivity, allowing users to zoom in, pan, tilt, navigate, and click to access detailed information about map data.
- Designed the app in a flexible manner, allowing easy insertion of additional data to the map for further contribution.
- **Utilized by an online institution** to teach international policies to its students.

#### NoseBook

ReactJS, ExpressJS, NodeJS, MongoDB, Socket.io, PassportJS, Material UI, Google Cloud, Cloudinary

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- Developed a full-stack **Facebook and Messenger clone**, featuring all the core functionalities including posts, comments, likes, friend requests, real-time notifications, real-time messaging, and a wide range of other features.
- Created two backend servers—one for handling API requests and the other for handling Socket.io events.
- Implemented a basic username/password-based authentication and **Google authentication** system using PassportJS, BcryptJS, JWT, and Google Cloud Platform.
- Utilized Socket.io to store users' locations within the app, allowing a proper real-time notification system for new messages (e.g. a user receives real-time notifications for new messages only when the user is NOT on the messenger page).
- Added a continuous typing indicator for real-time chatting that functions better than that of Skype and Telegram.
- Utilized full-text search index of MongoDB, allowing users to search for other users' accounts.
- Employed Cloudinary for storing images (post images, profile pictures, and cover pictures).
- Hosted the main API server on Google Cloud's App Engine Application Platform.

#### **Blog App**

ReactJS, ExpressJS, NodeJS, MongoDB, TinyMCE, PassportJS

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- Developed a full-stack personal blog for posting stories and allowing other users to like and comment on them.
- Integrated advanced text editor features with TinyMCE, allowing the addition of images, tables, and iframes.
- Implemented a **RESTful** API using ExpressJS for smooth CRUD operations from the client interface.
- Followed MVC architectural pattern, ensuring a flexible and maintainable codebase.

Portfolio ReactJS, EmailJS

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- Built a **fully responsive** portfolio website for myself.
- Utilized JavaScript intersection observer to animate components upon scrolling.

# ----Work Experience------

#### Code In Place, Stanford University

2023 Mar - 2023 Apr

Remote

Section Leader, Mentor

- Worked within a large teaching team to ensure the effective delivery of the curriculum teaching the fundamentals of programming to nearly 500 students.
- **Led a specific section** comprising a diverse **group of 10 students**, providing personalized guidance and mentorship throughout their journey.

——Education—————————

## **B.S. Chemical Engineering**

Shahjalal University of Science and Technology

2017 Apr - 2021 Aug Sylhet, Bangladesh

Languages: Bangla (Native), English (Second Language | SAT: 1490/1600), Hindi (Conversational)