

# Md Shirsho Dipto Haque

shirshodipto@gmail.com | [linkedin.com/in/md-shirsho-dipto-haque](https://www.linkedin.com/in/md-shirsho-dipto-haque) | [github.com/ShirshoDipto](https://github.com/ShirshoDipto) | Kushtia, Bangladesh

## 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

### Geopolicy Analyzer

JavaScript, HTML, CSS, Webpack, MapboxGL, Mapbox Studio

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- Developed an **interactive, data visualization map** showcasing conflict zones and energy pipelines around the world, 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 username/password-based authentication and **Google authentication** system using PassportJS, BcryptJS, JWT, and Google Cloud Platform.
- Utilized Socket.io to add real-time functionalities, such as real-time notifications (posts, friend requests, messages), online/offline friends, instant messaging, and a **continuous typing indicator 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

Section Leader, Mentor

Remote

- 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

2017 Apr - 2021 Aug

Shahjalal University of Science and Technology

Sylhet, Bangladesh

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