





SADIA BINTE MONIR

 github.com/monir405  sbmonir@mun.ca  linkedin.com/in/sadia-binte-monir  sadiabintemonir.netlify.app

WHY CHOOSE ME

- Proven ability to build dynamic, responsive web applications using modern frameworks and tools.
- Experienced in creating data-driven solutions, from visualization dashboards to full-stack services, enhancing decision-making and user engagement.
- Skilled in Agile methodologies, contributing to team success through effective communication and continuous iteration.
- Dedicated to rigorous testing, debugging, and optimization to ensure reliable, high-performing applications.

SKILLS

- Front-end Web Development
- Database Optimization
- Git Version Control Practices
- Testing and Quality Assurance

TECHNOLOGIES

- React
- Next JS
- Material UI
- Python, C/C++, Java
- JavaScript, HTML5, CSS
- MySQL
- Windows, Linux
- Microsoft Office Suite
- Github

EDUCATION

Software Development Co-op
College Of North Atlantic
09/2023 - Present,

Relevant Coursework:

- Database Management Systems (focused on MySQL)
- Operating Systems (with an emphasis on Linux)
- OOP with Java, Python,
- JavaScript, HTML5/CSS.

CERTIFICATIONS

- **Data Analysis With Python** by freeCodeCamp (January 20, 2024).
- **Responsive Web Design** by freeCodeCamp (October 28, 2023).
- **Scientific Computing With Python** by freeCodeCamp (October 12, 2023).

EXPERIENCES

Corsphere | Front-End UI Developer , 2024/09 - Present

- Enhanced user authentication and session management for improved security and user flow with **Next.js** and **React Hooks**.
- Optimized data visualizations and performance in **React** and **Victory** for real-time analytics.
- Upgraded text processing services with enhanced validation, error handling, and **RESTful API** improvements using **Flask**.
- Developed new mapping tools and data sync features for geospatial applications with **React-Leaflet**.
- Led UI redesigns with **Material-UI** and **Tailwind CSS** for better accessibility and engagement.
- Improved front-end performance and conducted code reviews to align with Agile practices.
- Automated testing processes using **Jest**, **React Testing Library**, and **Pytest** for stability and quality.

Corsphere (Co-op) | Front-End UI Developer , 2024/05 - 2024/08

- **User Authentication Development:** Developed a secure authentication system for a **Next.js** application using **React Hooks** and **Material-UI**, managing sessions with **Session Storage** and preventing duplicate accounts with **Local Storage** by validating credentials during signup. Utilized **Next.js** Router for dynamic routing and created state-driven login, dashboard, and welcome pages for a personalized user experience.
- **Data Visualization Engineering:** Created an interactive data visualization tool using **React** and **Victory** to analyze global datasets. Implemented interactive tooltips and complex data processing with **JavaScript** (filtering, grouping, threshold calculations). Managed state and data flow with **React Hooks (useState, useEffect)**, and ensured visual clarity and usability with custom styles and accessibility features using **CSS**.
- **Full-Stack Development:** Built a full-stack text processing service with a React front-end and Flask back-end for real-time text transformation. Developed a **Flask RESTful API** for text capitalization, using **Axios** for **HTTP** requests and **Python** logging for error handling and debugging. Implemented secure cross-origin communication with **CORS** and incorporated logging mechanisms for detailed request-response monitoring.
- **Geospatial Application and Shape Management:** Led the development of a geospatial data visualization app using **Next.js**, **React**, and **Leaflet**. Built interactive maps with image overlays, dynamic markers, and customizable shapes (circles, polygons, polylines) using **React-Leaflet**. Developed an image management system with React components and Local Storage, implementing custom drawing tools, shape management with **React Hooks**, **UUID**, and **React Color Picker**.
- **User Interface and Experience Optimization:** Enhanced UI/UX by building an image library management system with **React** and **Material-UI**. Used **React Icons** and custom styles for a visually appealing interface, applying **Tailwind CSS** for consistent performance and responsiveness across devices.
- **Agile Development and Collaboration:** Participated actively in Agile development processes, contributing to daily stand-ups, sprint planning, and code reviews. Used Git for version control to support continuous integration and delivery.
- **Testing and Quality Assurance:** Conducted comprehensive testing and debugging across various components. Implemented unit tests with **Jest** and **React Testing Library** for the front end and **Pytest** for backend API validation, ensuring reliability and performance.

PROJECT

Multiplayer Puzzle Game

- Developed a multiplayer puzzle game platform with five distinct games (Tic Tac Toe, 2048, 4 in a Row, Nine Men's Morris, Chess) using **React** and **Next.js** for the front-end framework.
- Implemented game state management with **React hooks** and **JavaScript**, including time-bound moves, turn-based mechanics, winner detection, features like move history tracking, game pause/resume, and game-over detection and real-time state updates.
- Utilized **Material-UI** for dynamic UI components, ensuring a responsive design and consistent user experience.
- Incorporated game-specific logic and interactivity for each game, with Chess logic utilizing the **Chess.js** library.
- Deployed and tested on modern browsers, focusing on performance and user engagement.