Tazim Khan

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EDUCATION

University of Ottawa   **Sept. 2022 – Dec 2026**
BASc Software Engineering (CO-OP)   *Ottawa, ON*
- **Coursework:** Introduction to Computing I & II, Data Structures and Algorithms, Software Quality Assurance, Analysis and Design of User Interfaces, Operating Systems, Software Architecture and Design

EXPERIENCE

Full-Stack Developer (CO-OP)   **May 2023 – Sept. 2023, Jan 2024 – Apr. 2024**
Canada Revenue Agency   *Ottawa, ON*
- Contributed to the development of an Angular component library by **developing Angular pages and components** to aid developers in the digitalization of CRA forms.
- **Developed REST APIs in Java** to facilitate communication between the frontend and backend to analyze if user inputs were being properly processed for PDF generation.
- **Conducted JUnit testing** to ensure the reliability and functionality of the library's input validators, identifying issues in over **70% of the validators**.
- **Maintained Git workflow**, managing branches, resolving conflicts, and reviewing pull requests.

WebMaster   **August 2024 – Present**
🔗 *University of Ottawa Health and Fitness Society*   *Ottawa, ON*
- **Developed and maintaining** a website for UOHFS using Next.js and Tailwind CSS.
- **Automated real-time updates** for the 'Events' page by integrating Google Calendar API with NextJS Server Side Rendering, **removing the need for manually updating the 'Events' page**.
- Designed a user-friendly, responsive, and visually appealing website that meets client requirements.

PROJECTS

🔗 **TeeChat** | *React, Express.js, WebSockets, MongoDB, AWS EC2*   **July 2024 – Present**
- Built a real-time chatting application using WebSockets (Socket.io) that facilitates instant messaging between multiple clients.
- Used MongoDB and Socket.io events to **dynamically store and retrieve users, rooms, and messages**, with **one-way hashing for securely storing passwords**.
- Implemented JWT tokens for **secure authorization** and keeping users logged in.
- Utilized AWS EC2 to deploy the backend, improving reliability and supporting increased user demand

StudySync | *Angular, Springboot (Kotlin), PostgreSQL, Docker*   **Sept. 2024 – Dec 2024**
- Collaborated in a team of 5 to develop a Team Management System's Team Creation Sub-System
- **Engineered backend infrastructure** in Spring Boot, including secure JPAs, DAOs, and REST API endpoints for team and course management.
- **Led database initialization and schema design** using PostgreSQL to ensure robust data persistence.
- Built Angular components and pages, connecting responsive UI with secure backend APIs.
- Streamlined backend deployment and database setup using Docker Compose, ensuring seamless project execution across all environments.

Talk Box | *C# (.NET), Raspberry Pi (Linux), Git*   **Sept. 2023 – Dec 2023**
- Collaborated in a four-person team to develop a Talk Box device using a Raspberry Pi and C#(.NET), **enabling nonverbal users with limited motor control to communicate effectively**.
- Developed functionality for caregivers to add, remove, and organize custom words, phrases, andcategories, allowing **near-unlimited verbal expression options** for the user.
- Implemented the use of a joystick with key-mapping to allow for simple interactiopn with the device

TECHNICAL SKILLS

Languages: Python, Java, Kotlin, C#, JavaScript/TypeScript, HTML/CSS, SQL
Frameworks/Libraries: React, Next.js, Angular, Node.js, Express.js, Spring Boot, Socket.io, Mongoose
Developer Tools: Git, Docker, Postman, AWS (EC2), Google Cloud Platform, Vercel
Databases: PostgreSQL, MySQL, SQLite, MongoDB, Firebase