Abdullah Al Amaan

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TECHNICAL SKILLS

Languages: Python, C++, JavaScript, TypeScript, VHDL
Frameworks/Libraries: Flask, Next.js, React, Redux, Express, Node.js, Tailwind CSS
Developer Tools: Git, Firebase, FPGA, SolidWorks, MongoDB

EXPERIENCE

Software Engineer Intern — May 2024 – Aug 2024
Brain Station 23 PLC. — *Dhaka, Bangladesh*

* Developed and maintained scalable web applications using the **MERN** stack, enhancing overall client project performance by **10%**.
* Implemented responsive designs and ensured cross-browser compatibility, enhancing user experience across devices and browsers, contributing to a **15%** decrease in bounce rates for client websites.
* Collaborated with cross-functional teams, including **designers** and **project managers**, to deliver high-quality products, ensuring seamless integration and user satisfaction.

Software Engineer Intern — Mar 2023 – Jun 2023
InterCloud Limited — *Dhaka, Bangladesh*

* Designed and implemented high-performance APIs using **Flask** and **Python**, focusing on seamless user integration.
* Improved system efficiency by **5%** through optimizing API performance with **C++** for critical computational tasks.
* Enhanced API responsiveness and scalability by implementing asynchronous processing with **Redis**, reducing latency and handling higher traffic loads efficiently

PROJECTS

Alapon ◉ | *Next.js 13, React, Tailwind CSS, Prisma, MongoDB, NextAuth, Pusher*

* Developed a real-time social networking app with features like instant messaging, image sharing, real-time notifications, and secure data handling, focusing on delivering seamless and reliable communication.
* Integrated secure **user authentication** and data management, ensuring complete privacy and smooth user experience.
* Currently enhancing the app with AI-driven features by integrating **OpenAI API** to provide advanced functionalities, aiming to improve user interactions.

Filmatic ◉ | *React, Firebase, Tailwind CSS*

* Enhanced user engagement through personalized features like **"Watch Later"**, and **"Watch Again"** after authentication using **Firebase**, leveraging JavaScript and JSON for dynamic content generation, significantly improving user retention and satisfaction.
* Streamlined user access to content by creating an intuitive interface with advanced **filtering** and **search** capabilities, allowing users to discover movies and TV shows tailored to their preferences easily.
* Implemented responsive design using styled-components and **Tailwind CSS** with a mobile-first approach, significantly improving accessibility and user interaction across various devices.

IntelliTraffic Control System ◉ | *VHDL, FPGA*

* Engineered a traffic light control system using **VHDL** and **FPGA** boards, leveraging state machine concepts to simulate and manage traffic flow dynamics effectively.
* Performed comprehensive system simulations and real-world testing on FPGA platforms, enhancing traffic light coordination and achieving robust performance with precise state transitions.
* Optimized the FPGA-based system to reduce logic utilization by **15%**, ensuring efficient operation and demonstrating advanced skills in **digital circuit design** and **real-time embedded system applications**.

EDUCATION

University of Waterloo — Waterloo, ON
Bachelor of Applied Science in Computer Engineering — *Expected graduation: 2028*

* University of Waterloo President's Scholarship of Distinction