

SAQIB ASHRAF

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Technical Skills

Languages: Python, Typescript, C++, SQL, HTML/CSS, C#, C, Java, Visual Basic, UML

Libraries and Frameworks: Angular.js, .NET, React.js, Node.js, Express.js, MongoDB, MySQL, PostgreSQL

Developer Tools: Git, SourceTree, Vim, Visual Studio Code, Bash, Linux, Docker, AWS, Supabase, Firebase

Experience

Port 443 Inc.

September 2024 - Present

Fullstack Software Developer Intern

Burlington, Ontario

- Developed a private **REST API** with **.NET** and **Bogus.Net**, introducing the company's first integration testing pipeline. Enabled data generation mimicking workflows for **15,000+** customers with flexible configurations
- Engineered a TestSchoolGeneration service, leveraging **sets** and **dictionaries** for **O(1)** lookups and efficient ID mappings. Wrote **1000+** lines of unit tests, ensuring reliability of the integration testing pipeline, and data generation.
- Implemented a teacher navigation feature using **RxJS** fork joins, sets, and maps in **TypeScript**. Enabled routing from attendance to Google Maps or video conferencing software for in-person or online events, affecting **12,000+** users
- Created a flexible "Submission Bar" component using **ViewChildren** in **Angular.js** for responsive button layouts on mobile and desktop. Integrated into **380+** **drawers**, dialogs, and wizards, ensuring a modern UX.
- Implemented a new grid layout for the student section from **Figma** designs, ensuring three-brand compatibility in collaboration with UI/UX teams. Optimized time complexity from **O(n²)** to **O(n)**, reducing render times.

Appy.Yo

March 2024 - Jun 2024

Software Engineering Intern

Remote

- Implemented **RESTful API** endpoints using **Next.js** and **PostgreSQL**, enhancing data retrieval efficiency by **35%**
- Developed automated test scripts using **Python** and **Selenium** to test 10 web pages within **30 seconds**.
- Resolved **20+** bugs by conducting root cause analysis, resulting in a **35% decrease** in user-reported bugs.
- Collaborated with the CEO through 10+ iterations to design UI/UX elements in **Figma**, then translated these designs into reusable **React components** using **Tailwind CSS** and **Next.js**.
- Implemented authentication forms using **React.js** with non-pasteable fields, regex for strong passwords, and prepared statements to prevent **SQL injection** attacks.

Projects

Interviewly.ai | *Next.js, ChatGPT Whisper API, Tailwind CSS*

- Implemented using **ChatGPT Whisper API** to turn job descriptions into technical questions, reducing time spent searching for interview questions by **100%**.
- Implemented voice recording functionality using **MediaRecorder API** and **Blob** objects, sending packets to the **ChatGPT API** for a response within **5 seconds**.

Python AI Chess Bot | *Python, AI*

- Utilized **Python** to develop a chess **artificial intelligence** bot employing the **minimax algorithm** to determine the best move by **searching over 4,500,000 positions**
- Implemented **alpha-beta pruning** technique within the artificial intelligence bot using Python and optimized the search process, **decreasing the number of nodes searched by over 90%**

STUDY! | *Python, Custom Tkinter, Selenium, Threading*

- Developed the application using **Python**, leveraging **Object-Oriented Programming** principles, **dictionaries**, and **lists**, amassing over **30 users**.
- Implements the **Psutil** and **Selenium** libraries to terminate all applications and tabs that cause users to deviate from tasks, reducing hours spent on studying by **35%**

Education

University of Waterloo

Bachelor of Applied Science in Electrical and Computer Engineering

Waterloo, Ontario