

# SAQIB ASHRAF

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## Technical Skills

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**Languages:** Python, Typescript, C++, C#, C, Java, SQL

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

**Developer Tools:** Git, Docker, AWS, Supabase, Firebase, Vim, Visual Studio Code, Visual Studio

## Experience

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### Ontario Institute for Cancer Research

May 2025 – Present

*Fullstack Software Developer*

*Toronto, Ontario*

- Cut bioinformatician and scientific researcher's onboarding times by **40%** by writing a **TypeScript** DFS-based JSON parser that converts **1,200+ nested if** conditions into clear "if X then Y" rules, empowering domain experts to validate workflows.
- Reduced schema-table render times by **70%** (from **~500 ms** to **~150 ms**) across **15,000+ JSON paths** by profiling and memoizing **React** components, enabling real-time data exploration.
- Enabled partner institutes to self-host versioned schema dictionaries via three load modes (server fetch, bundled JSON, custom manifest), reducing integration friction by **70%** and supporting offline workflows.
- Accelerated data-model review speed by **50%** by transforming raw JSON schemas into interactive **ERDs** with **React Flow** embedded in schema cards.
- Cut production hot-fixes by **80%** by authoring comprehensive **Jest & React Testing Library** suites (nested filters, version toggles, modal logic) within a **Jenkins CI/CD** pipeline.

### Port 443 Inc.

September 2024 – January 2025

*Fullstack Software Developer Intern*

*Burlington, Ontario*

- Developed a private **.NET**-based **REST API** with **Bogus.Net**, introducing the first integration testing pipeline and generating data for **15,000+** customers.
- Engineered a **TestSchoolGeneration** service in **.NET** using **HashSets** and **Dictionaries** for **O(1)** lookups; wrote **1,000+** lines of unit tests to ensure reliability.
- Architected a **Bootstrap**-powered Submission Bar in **Angular.js**, integrating into **380+** drawers, dialogs, and wizards for a modern UX.
- Implemented teacher navigation in **TypeScript** with **RxJS** fork joins, sets, and maps for **12,000+** users; scripted **C#** with Microsoft Locale package to provide **English** support across **150+** global regions.

### Appy.Yo

March 2024 – June 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 issues.
- Collaborated with the CEO through **10+** iterations to design UI/UX in **Figma**; translated these into reusable **React** components with **Tailwind CSS** and **Next.js**.

## Projects

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### Interviewly.ai

*Next.js, ChatGPT Whisper API, Tailwind CSS*

- Leveraged the **ChatGPT Whisper API** to transform job descriptions into technical interview questions, eliminating manual searches and reducing time spent by **100%**.
- Implemented voice recording with the **MediaRecorder API** and **Blob** objects, sending audio to the **ChatGPT API** and receiving responses within **5 seconds**.

## Leadership & Volunteering

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### Variety Village Children's Charity

*Ambassador & Programs Lead*

- Organized youth soccer programs, summer camps, and facility-wide events (Police Games, Lieutenant Governor's Games) for neurodivergent children.

## Education

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### University of Waterloo

*Bachelor of Applied Science in Computer Engineering*

*Waterloo, Ontario*