

# ZIXI (SAM) TANG

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## Skills

- **Languages:** C#, C++, Java, Python, CSS, HTML, JavaScript, SQL, C, Racket
- **Technologies:** React.js, Linux, Bash, Git, Bootstrap, SQL Server, .Net Core, Azure, Entity Framework Core

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## Experience

### Full-stack Developer | ZOMP

Apr. 2023 – Aug. 2023

- Worked on a cutting-edge software in the gas and pipeline industry using **.Net Core 8**
- Constructed and designed **REST API architecture** for a remote central server hosted using **Azure SQL Database, Azure App Service, and Azure Cloud File Server**
- Implemented new features on both the front-end and back-end using **XAML (WPF), Entity Framework Core, and SQL Server**
- Increased proficiency in conducting thorough and systematic code testing to identify and rectify bugs via **unit testing**

### Front-End Website Developer | FOCUS Youth

Apr. 2021 – Dec. 2021

- Met strict deadlines to create an interactive and engaging website using **HTML, CSS and JavaScript**
- Collaborated in a fast-paced team-based environment to ensure customer satisfaction
- Utilized **Bootstrap** framework to create a responsive and elegant navigation bar

### Executive | St. Robert CHS FIRST Tech Challenge Team

Sep. 2019 – Jun. 2022

- Took initiative as a part of the programming and design team to implement efficient algorithms (using **Java**) and create **CAD** designs (Fusion 360)
- Created an interactive environment to inspire growth and interest in STEM as well as a connected school community through robotics related lessons and workshops
- Collaborated in a team of **15** to compete in the FTC tournament (achieved **first place** in Ontario Championship 2020)

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## Projects

### Sudoku Solver | React.js, CSS | (<https://github.com/Zixi-Sam-Tang/SudokuSolver>)

- Utilized React framework to create a functional web application to offer sudoku solving solutions
- Applied **React hooks** to create functional components for better readability and easier testing
- Implemented algorithms involving **bit masking** to maximize efficiency (reduced the time complexity of checking a valid node input from **O(n)** to **O(1)**)

### Sudoku Solver Backend | C#, .Net Core, SQL | (<https://github.com/Zixi-Sam-Tang/SudokuSolverBackend>)

- Administered **.Net Core(C#)** to create custom **API**, linking the front-end with the back-end (a locally hosted **SQL Server** with **9 million** entries)

### Personal Website | JavaScript, HTML, CSS | (<https://zixi-sam-tang.github.io/>)

- Applied **HTML** and **CSS** concepts to create an enriched user experience
- Implemented **JavaScript** functions to track user events for responsive web elements

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## Education

### Candidate for the Bachelor of Computer Science

Sep. 2022 – Present

University of Waterloo

Waterloo, Ontario

- GPA | **4.0**
- Faculty of Mathematics Entrance Scholarship – **\$10,000**

### International Baccalaureate (IB) Graduate

Sep. 2018 – Jun. 2022

St. Robert Catholic High School

Thornhill, Ontario

- York Secondary Catholic Presidents' Council - Awards for Outstanding Leadership (2022)
- St. Robert CHS School Award of Excellence - Mathematics Award (2022)