Akshay Vakil

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EDUCATION

Toronto Metropolitan University (Formerly Ryerson University)　　　　　Toronto, ON
Bachelor of Science with Honors in Computer Science　　　　　*Expected: April 2026*
- **Relevant coursework:** Data Structures, Algorithms, Database Systems, Web Development, Intro to UNIX, C and C++, Operating Systems, Intro to Software Engineering, Discrete Mathematics, Computer Security

RELEVANT EXPERIENCE

Front End Engineer　　　　　November 2023 – February 2024
Carib Farm　　　　　*Waterloo, ON*
- Built responsive web app with **React**, **React Router**, and **HTML/Tailwind CSS**, increasing user engagement by **25%**
- Optimized performance via lazy loading, **React.memo**, and client-side rendering techniques, cutting load times by **40%** across all pages
- Created **Storybook** component library and UI documentation, boosting team velocity by **40%**
- Implemented **React Query** and custom hooks for data fetching, reducing code duplication by **30%**

PROJECTS

Meteor Smash Simulator　　　　　December 2023 – August 2024
*Lua, Data Structures and Algorithms — **ROBLOX Video Game***　　　　　**Game Link**
- Developed and published a game with **5,000+ monthly users**, **20,000+ visits**, and generated **$1,000+ USD**.
- Built a scalable codebase using **OOP principles** and managed player data with **Data Stores** for **22,000+ users**, with over **60,000+** lines of code.
- Developed and enhanced security by implementing **extreme server-side validation** and **anti-exploit measures**, resulting in **0 successful exploit attempts**
- Optimized game performance by **50%** through advanced multi-threading techniques, reducing latency and crash rates for low memory devices from **14%** to **1%**, and increased session times by **3-5 minutes**, placing the game in the **90th percentile** for engagement.

RateMyClasses　　　　　December 2024
*MongoDB, Express, React, Node, Postman, Docker — **Fullstack Application***　　　　　**Application Link**
- Developed a full-stack web app for course reviews at **Toronto Metropolitan University** using **MongoDB** to store users and courses.
- Created 2 data models and implemented **GET, POST, DELETE** backend functionality.
- Created and developed a **REST API**, with over **10+** routes, parsing **JSON** data to handle various user requests such as creating, reading, updating, and deleting course reviews.
- Utilized **Docker** to ensure consistent development and integration across platforms.
- Developed a responsive UI with **framer-motion** for smooth animations and dynamic review displays.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, Lua, Java, C, SQL

Frameworks/DB: MongoDB, Oracle, PostgreSQL, ReactJS, Next.js, Bash, Express, REST, Node.js, MySQL

Dev Tools: Git, GitHub, Docker, AWS, Microsoft Suite(Office, Excel), PowerBI, Azure, Netlify, Jira