Nicholas Chew

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Education

University of Waterloo   *Waterloo, Canada*
Bachelor of Software Engineering, Honors   *2022 - Present*
- President's Scholarship of Distinction

Skills

Languages   Python, JavaScript, TypeScript, HTML/CSS, Java, C++, C, SQL
Technologies   React, Node.js, PostgreSQL, Express, Redis, Socket.io, Jest, Git, Google Cloud Platform, Docker

Experience

Rivalry   *Toronto, Canada*
Software Developer Intern   *Sep 2021 - Jan 2022*
- Developed a Discord Bot that led to a ∼**350%** increase in E-sports information retrieval times.
- Built in-app commands to display upcoming E-sports matches with team statistics using the Rivalry API, JavaScript, Discord.js and Axios.
- Prototyped an authentication system linking Discord accounts to Rivalry using MySQL to save user information.
- Utilized GitHub and the Twelve-Factor App lifecycle to integrate my work with industry software standards.

RHHS Student Council   *Richmond Hill, Canada*
Software Developer   *Jun 2021 - Jun 2022*
- Maintained the Richmond Hill High School Student Council website using TypeScript, React and Google Cloud Functions.
- Developed an updated front-end design and clean user experience causing a ∼**410%** increase in weekly site traffic.
- Collaborated with other student council departments and school clubs to ensure their information was precisely displayed.

Code Ninjas   *Vaughan, Canada*
Coding Instructor   *Oct 2020 - Aug 2021*
- Prepared thirty minute weekly coding sessions for five students aged 8 to 13 over Zoom video calls.
- Taught students fundamental programming concepts such as variables, conditionals, loops, and functions through game development using Scratch.
- Led lessons for advanced students teaching object oriented concepts using the MakeCode Arcade platform.
- Resolved all inquiries about class information with parents promptly and professionally.

Projects

BlackjackVision
Python, OpenCV   *Dec 2022*
- Utilized Python and OpenCV to program a playing card recognition system that feeds data into a custom blackjack algorithm and outputs relevant game data to the user.
- Designed and implemented the blackjack software into glasses fitted with Raspberry Pi hardware, a camera module, and mini-OLED display.

SharpChat
React, PostgreSQL, Express, Redis, Socket.io, Docker   *Aug 2022*
- Programmed a chatting web app using React, ChakraUI, and Socket.io allowing for quick and simple communication between friends.
- Constructed a friending and account system with authentication using PostgreSQL databases.
- Utilized Redis for effective data storage to ensure user sessions and messages were persistent.

RadomirChess
Java, Git, AWS, UX Design   *Jan 2022*
- Developed a chess app built in Java Swing featuring a chess logic engine, server system, account system, and a customizable user interface.
- Refined the lobby system allowing users to create public and private playing rooms using socket communication.