Sunny **Zuo**

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Skills

Languages: JavaScript, TypeScript, Java, C#, Python, C, C++, ActionScript 3, HTML/CSS
Technologies: Node.js, React/React Native, Angular, MongoDB, Express, socket.io, Flash, Adobe AIR

Experience

ECSSEN Career School   *Calgary, AB*
Software Developer   *Jul 2020 – Nov 2020*
- Built and deployed DeFi (decentralized finance) **smart contacts** using **C++** for **EOSIO blockchains**
- Designed and developed a frontend to allow users to interact with smart contracts using **React, eosjs, and scatterjs**

YYC Science Bowl   *Calgary, AB*
Director of Technology   *May 2019 – Aug 2020*
- Designed and built a website to reach interested participants, increasing the number of competitors by **over 30%**
- Created custom web-based buzzer solution for competition use using **Angular, Node.js, Express, and socket.io** increasing buzzer accuracy to **100%**

University of Calgary   *Calgary, AB*
Assistant Instructor   *Aug 2018, Aug 2019*
- Assisted students with designing, building, and debugging software built using **ActionScript 3 and JavaScript**
- Created and taught lesson on building multiplayer games using **websockets**
- Received **100% positive feedback** from instructors and 30+ students

Projects

SmartGarden ⬈
- Created full stack mobile application using **MongoDB, Express, React Native, and Node.js** for smart plant management
- Designed and developed **Android** app UI with **Material Design**, allowing users to view plant health metrics and issue commands
- Utilized serial ports for bidirectional communication between the server and Arduino, allowing commands triggered via a **REST API** to be executed and plant health metrics measured to be aggregated and stored in a **MongoDB** database

Sir Goose Bot ⬈
- Built a Discord bot using **Node.js, MongoDB, and Discord.js** providing server management tools and various utilities
- Created an authorization layer on Discord using UWaterloo's LDAP, supporting **600+ users**

Arbitrage Finder
- Developed tool using **Node.js** that aggregates odds data from a number of sports-betting platforms utilizing **GraphQL APIs, REST APIs**, and web scraping using **Puppeteer**
- Designed algorithm to analyze data and match identical markets and events to find arbitrage opportunities

Cybersecurity CTF Writeups ⬈
- Authored writeups for various cybersecurity/infosec **CTF (Capture the Flag)** event challenges
- Solved challenges primarily centered around web exploitation skills such as XSS attacks, SQL Injections, path traversal attacks, and general scripting in **JavaScript and Python**

Awards

Sep 2020	**President's Scholarship of Distinction**	*University of Waterloo*
Mar 2020	**Think Award and Invitation to World Championship** Awarded for the most effective and innovative use of programming in provincial championships	*VEX Robotics*

Education

University of Waterloo   *Waterloo, ON*
Candidate for Bachelor of Software Engineering (BSE), Honours   *Sep 2020 – Apr 2025*
93.8% GPA, SE Soc Representative