# ETHAN CHEN

# **EDUCATION**

## University of Waterloo

Sep. 2024 - May 2029

Bachelor of Applied Science in Computer Engineering

Waterloo, Ontario

#### **EXPERIENCE**

## **Setford Consulting & Technology Ltd.**

August 2023 - October 2023

Front-End Web Developer

Calgary, Alberta

- · Wrote the website "structure3d.com" using HTML and JavaScript to manipulate the DOM and build engaging visual effects.
- · Utilized TailwindCSS to develop a satisfying user interface and experience that resulted in greater user retention.
- · Developed communication skills by consistently coordinating with the client to ensure that all requests and needs are satisfied.

## **PROJECTS**

Problem Set Assistant | TypeScript, NextJS, React, Redux, TailwindCSS, PostgreSQL, Vercel, AWS S3, AWS Lambda

July 2024

- · Developed a NextJS and React full-stack web application hosted on Vercel that helps the user focus on questions to improve on.
- $\cdot \ \, \text{Utilized AWS Lambda to process user-uploaded PDFs into images readable by OCR (TesseractJS) stored in AWS S3 buckets.}$
- $\cdot$  Implemented PostgreSQL to store users and sessions as well as organize user files stored on S3.

# **To-do list Desktop Application** | TypeScript, NextJS, React, Tauri, TailwindCSS

March 2024

- · Developed a desktop application by using Tauri to render a NextJS application in a window.
- · Implemented Todoist API and OAuth to reference a user's to-do list.
- · Used Todoist API to display a user's data as a traditional to-do list or on a calendar.

## Real-time Mathematical Rendering Hack the North 2022 Project | C#, .NET Windows Forms

September 2022

- · Developed a desktop application using .NET Windows Forms to render mathematical notation in real-time.
- · Actively learned collaboration capabilities on GitHub with hackathon teammates.
- $\cdot \ \, \text{Improved presentation skills by explaining the project to judges and observing speaking strategies demonstrated by teammates.}$

#### **TECHNICAL SKILLS**

Languages: Python, Java, C#, C++, HTML/CSS, TailwindCSS, JavaScript, TypeScript, React, Redux, NextJS, ExpressJS, SQL (Postgres) Developer Tools: VS Code, VS Community, Eclipse, Android Studio, NodeJS

Technologies/Frameworks: GitHub, Vercel, AWS S3, AWS Lambda, Tauri, .NET

## LEADERSHIP / EXTRACURRICULAR

# First Tech Challenge Robotics Team

Fall 2022 - Spring 2024

Lead Programmer

Strathcona-Tweedsmuir School

- · Contributed to increasing the team's divisional ranking by over 15 positions and entering provincial qualifications in less than a year by developing effective Java code for the robot using Android Studio to compete in the autonomous phase.
- Efficiently and calmly coordinated with teammates during match intermission periods of 5-15 minutes to fix or improve the robot.
- · Adapted to alliance teams by initiating strategic communication before the match to optimize the overall alliance score.

#### Awards

## University of Waterloo President's Scholarship of Distinction

**July 2024** 

**June 2024** 

University of Waterloo

The Timothy Stiles Memorial Award

Strathcona-Tweedsmuir School

The Dr. Dorothy Goldstein Memorial Prize for Senior School Science

June 2024

Strathcona-Tweedsmuir School

**Canadian Senior Mathematics Contest Certificate of Distinction** 

December 2023

University of Waterloo