

Ethan Kharitonov

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EDUCATION

University of Toronto

- *Computer Science Specialist, Mathematics Major; cGPA: 3.95/4.00* *September 2021 - April 2025*
Second-year student, Dean's List for both semesters of the first year
Notable courses: Fundamentals of Computer Science I and II, Theory of Computation, Algorithms and Complexity, Systems programming in C, Software Design. Completed by end of 2024: Parallel Programming, Operating Systems, Intro to Databases

SKILLS/INTERESTS SUMMARY

- **Professional interests:** Math, Web development, Game design, Cryptology, Machine learning and AI
- **Languages:** C, C#, Python, Java, JavaScript, CSS, HTML, YAML, SQL Server (beginner)
- **Frameworks:** React, React Router, ASP.NET Core, Entity Framework, SignalR
- **Tools:** GIT, \LaTeX , Azure boards, Xunit, Pytest, Postman, Fiddler

EXPERIENCE

Ceridian

Full Stack Developer Intern

May 2023 - Present

- Investigated and fixed bugs in large **ASP.NET Core** and **React** applications using tools such as **SQL Server Profiler** and **Fiddler**. Contributed to production code effecting clients.
- Designed and implemented **CI/CD** pipeline using Azure **YAML** which saved over 300 hours of total time spent manually building and deploying
- Managed the environment of multiple **IIS** applications including build and deployment automation as well as site setup and configuration
- Configured logging using **SeriLog** to help trouble shoot **ASP.NET Core API**

May 2022 - December 2022

- Developed a productivity tool used daily by over 20 QA engineers to make testing easier and more efficient.
- Designed and implemented a **React** application using **React Router** and the **Material UI** component library.
- Developed an API using **ASP.NET Core** and **Entity Framework**.
- Implemented real time updates in **React** using the **SignalR** library.
- Deployed the API and **React** app to **IIS** using **Azure Pipelines**.

JRoots Supplementary Hebrew School

Teacher Assistant

September 2019 - March 2020

- Helped students learn the Hebrew alphabet as well as basic reading/writing skills.
- Led activities for students.
- Kept classrooms clean and organized.
- Was responsible for over 20 students ages 5 - 10 on many occasions.

PROJECTS

Brick Breaker in Assembly

github.com/ethan-kharitonov/Brick-Breaker

- Implemented the classic brick breaker game using the **MIPS** instruction set.
- Included features such as keyboard and mouse I/O, sound effects and main menu screen
- Developed and implemented basic collision detection algorithm

2D Shooter Game

github.com/ethan-kharitonov/ISU-ButTanksThisTime

- A bird's eye view tank shooter written using the **C# MonoGame framework**. The objective is to set a high score by destroying enemy tanks while collecting power-ups and purchasing upgrades along the way.
- Developed a robust framework to simplify the implementation of a variety of enemy tanks, each having unique properties such as speed, weapon type, movement style, action on death, aesthetics, etc.
- Wrote a tool to easily design the paths and attack features of various enemy tanks
- Included an extensive weapon and power-up system available for the player to purchase using in game currency

Level Based Platformer Game

github.com/ethan-kharitonov/PASS4-Monogame

- Multi level platformed game written using the **C# Monogame framework** where the player must reach the door on the other end of the map while collecting key and gems on the way. The catch is that the player must input the movements of the character before executing them and watching them play out.
- Implemented basic physics and collision detection framework to allow mechanics such as believable player movment, pushing creates and various traps.

- Developed a framework to easily design and add levels using a simple text file interface

Tweet Sentiment Analyzer

github.com/ethan-kharitonov/CSC110/tree/main/projects/covax

- Used the **Twitter API** to collect over 200,000 tweets that mention vaccines in any way
- Utilized the **NLTK Python** sentiment analysis library to determine whether the tweet is criticizing or approving of vaccines.
- Used the **Plotly** graphing library to plot the average sentiment on any given day over the span of two years

Several other smaller projects written in C#, Python, Java and Javascript

- Maze generator, SHA256 implementation and a simple graphing calculator.

HONORS AND AWARDS

- **The Roy Alvin Hope Scholarship:** Awarded based on academic performance during the first year of university.