Ethan Kharitonov

Github: github.com/ethan-kharitonov
Linkedin: linkedin.com/in/ethan-kharitonov

Ethan.Kharitonov@mail.utoronto.ca
647-408-3894

EDUCATION

- **University of Toronto**
  Computer Science Specialist, Mathematics Major; cGPA: 3.90/4.00   *September 2021 - April 2025*
  Notable courses: *Algorithms and Complexity, Operating Systems, Intro to AI, Theory of Computation, Systems Programming in C, Software Design, Assembly, Real and Complex Analysis, Graph Theory, Abstract Algebra (Groups, Rings, Fields and Modules)*

SKILLS/INTERESTS SUMMARY

- **Languages**: C, C#, Python, Java, Kotlin, TypeScript, PostgreSQL, CSS, HTML
- **Frameworks**: React, React Router, AWS SDK and CDK, ASP.NET Core, Entity Framework, SignalR, Matplotlib
- **Tools**: GIT, LaTeX, Azure boards, Xunit, Pytest, Postman, Fiddler
- **Professional interests**: Algebra, Theory of Computation, Category Theory, Real Analysis, Logic, Game Design, Cryptography, Graphics and AI

EXPERIENCE

Amazon
Software Developer Engineer Intern   *May 2024 - August 2024*

- Built **AWS** infrastructure using **AWS CDK** and **CloudFormation** in order to streamline the creation and deployment of **Alexa** testing scripts
- Wrote testing scripts in **Kotlin** using the **AWS Lambda** and **AWS VPC** APIs as well as internal Amazon **Alexa** APIs.
- Used Internal Amazon frameworks to design **CI/CD** pipeline which deploys artefacts to **S3** and **Lambda**.
- Learned how to idiomatically use the internal Amazon build and development tools

Ceridian
Full Stack Developer Intern   *May 2023 - August 2023*

- Designed and implemented **CI/CD** pipeline using **Azure YAML**, saving 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

May 2022 - December 2022

- Developed a productivity tool used daily by over 20 QA engineers to make running certain tests approximately 50 times faster
- 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**

CLUBS

Quantitative Finance Club at UofT
Co-Founder & Vice-President   *January 2024 - Present*

- Planned and hosted an 'Intro to Quant Finance' workshop, attended by **25 students**, aimed to improve **financial literacy** in students as well as introduce some basic ideas from **derivatives pricing theory**
- Organized a tournament where teams competed to solve challenging questions from past quantitative finance interviews
- Managed club logistics, including **registering** with relevant authorities, **recruiting and hiring** students for various roles, and overseeing all club operations at a high level

PROJECTS

Level Based Platformer Game
github.com/ethan-kharitonov/PASS4-Monogame

- A multi-level platformer game, developed using the **C# Monogame framework**, requires players to guide a character through collecting keys and gems en route to an exit
- Implemented basic physics and collision detection framework to allow mechanics such as believable player movement, pushing creates and various traps
- Developed a framework to easily design and add levels using a simple text file interface

Real-time Social Network App

- A console based social media app written in **C**, designed to support simultaneous communication between **thousands** of users
- Implemented real time interactions using **TCP** sockets
- Designed various data structures to keep track of user data and interaction

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

- Propositional formula logic library, Maze generator, SHA256 implementation and a simple graphing calculator