

# Tyson Line

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Portfolio: [www.tysonline.github.io](http://www.tysonline.github.io)

[www.linkedin.com/in/tysonline/](https://www.linkedin.com/in/tysonline/)  
[www.github.com/TysonLine](https://www.github.com/TysonLine)

## Education

### BASc Computer Science / University of Ottawa

Expected Graduation: May 2027

- Relevant Courses: Digital Systems, Computer Architecture, Software Engineering, Data Structures & Algorithms

## Relevant Skills and Technologies

- **Programming Languages:** Python, Java, C++, JavaScript, React, TypeScript, Kotlin, HTML, Next.js, CSS, Assembly
- **Environments:** Linux, Visual Studio Code, Wireshark, Android Studio, Adobe Software
- **Technologies:** Git, SQL, Firebase, MongoDB, GROQ AI, Junit, Unreal Engine 5, Arduino, Raspberry PI
- **Hardware:** Computer Assembly/Upgrades/Troubleshooting
- **Skills:** Soldering, CAD Design, 3D Printing

## Relevant Experience

### Practice Positivity

May 2024 – Sep 2024

#### Mobile App Designer

Cayman Islands

- Design of the Practice Positivity mobile app, implementation of **user-friendly interfaces**
- Developed functional requirement documents including app features, user flows, and technical specifications
- Created **wireframes** and prototypes to visualize the app's design and functionality
- Evaluated **databases** to recommend solutions for efficient **data management** and **scalability**

### Brave Software

Mar 2023 – May 2023

#### Software Engineering Intern

ON, Remote

- Developed a **Python** program to detect the likelihood of **script** usage (**99%** accurate) for fraud in the **browser**
- Researched and identified **automation** scripts and software taking advantage of the Brave ads reward system
- Utilized **mathematical formulas** and **algorithms** with **O(nlogn) time complexity** to optimize the program
- Programmed innovative countermeasures using thorough **data analysis**
- Broke down, modified, and improved the scripts to create countermeasures

### Healthy Futures, LTD.

May 2023 – Sep 2023

#### Website Designer

Cayman Islands

- Designed and built **websites** using **Wix** cloud-based development platform, with compatible mobile formatting
- Developed customer response forms with customized **data entry fields** and **drop-down lists**
- **Debugged** website issues using select focus groups
- Integrated ideas from team members to make **functional improvements** ahead of launch
- **Designed** company logo, business cards, and imagery for marketing materials for the website

## Projects

### 2025 SE Competition – Cybersecurity (OSINT)

Mar 2025

- Secured **first place** in the Open-Source Intelligence (**OSINT**) round against **21** other teams
- Applied **cybersecurity** methods to extract critical information while navigating misinformation traps
- Identified flags across websites by examining **HTML/CSS**, discovering hidden links, and filtering out red herrings
- Showcased **teamwork** and **adaptability** in a **time-sensitive**, competitive environment

### TysonChess

Jan 2025

- Developed a chess engine using **Java** that utilizes **algorithms** such as bitboard representations, Zobrist hashing
- Engineered an **alpha-beta** search algorithm and a **transposition table**, enabling deep search depths
- Integrated **UCI** protocol support for interaction with chess **GUIs** and an interactive console **UI**
- Implemented move generation, including special moves like castling, en passant, and pawn promotion