

# Dhruv Warrior

[dhruvwarrior.github.io](https://dhruvwarrior.github.io)  
[github.com/dhruvwarrior/](https://github.com/dhruvwarrior/)  
[linkedin.com/in/dhruvwarrior/](https://linkedin.com/in/dhruvwarrior/)

Enthusiastic second year computer engineer excited about **creating things** and always looking to learn from them.

I'm passionate about working with teams and have experience with designing cross-platform software solutions. I'm capable at front-end web design, and have experience with **C# (Mono, .NET), JavaScript, C++ and C.**

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M5G1R1

I am looking for an internship that will help me grow with your company, and constantly push me to **create and learn new things.**

## experience

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### Research Assistant

DEC 2017 - PRESENT

I'm a member of Dr. Tamer Diraby's research group, creating software tools for civil engineers using insights from Dr. Diraby's research. Our current focus is "city-builder", a large-scale application that can help civil engineers design roads and cities. I'm part of a team of 2 designing and implementing the software in **C# (Mono, cross-platform).**

- I designed a backend framework that allows the user to import and export ".city" files and load 3D cities ready to be edited into the 3D view.
- I designed and implemented our standard library, consisting of classes like City, Road, RoadData, Lane, etc. The library exposes a simple API that makes creating roads/cities easy on the fly, by handling all communication with the 3D renderer.
- We present our work every 2-3 weeks to the research group.

### Founder of Broken Table Studio

SEP 2017 - PRESENT

🔗 [brokentablestudios.com](https://brokentablestudios.com), 🔗 [github.com/dhruvwarrior/905](https://github.com/dhruvwarrior/905)

I founded BTS, a small indie game studio with members from Toronto, USA, and India. I direct and manage all the teams from the Creative and Development (Programming/3D modelling) teams to the Project Management and Executive teams. I also actively work on programming and 3D modelling design. We're working on our first game: **905**. 905 is a game about robots and the Zeroth Law, and is being developed on **UnityEngine in C#.**

- I developed the movement and animation systems for the enemy robots and the main robot character.
- I designed the objective manager system, a system that stores and keeps track of in-game objectives and actions.
- We have an early playable demo! [brokentablestudios.com/demo](https://brokentablestudios.com/demo). It showcases our 3D modelling design and an old, early version of the movement/animation systems.

[mypulse.ca](https://mypulse.ca)

I started and co-founded Pulse, a start-up sponsored by the Entrepreneurship Hatchery NEST, a startup incubator at University of Toronto ([uofthatchery.ca](https://uofthatchery.ca)). Pulse is currently exploring ways to improve the events experience for young professionals and organizations, with a focus on networking and career-related events. Pulse gave me an appreciation of the product behind the code, and the language & passion to communicate with business-minded people.

- I directed and pitched our product at biweekly pitch sessions in front of a panel of investors, and worked with our mentors to constantly increment our product.
- I worked with multiple on-campus student groups to campaign the use of Pulse within the student community, and to hear their grievances regarding the event organization and attendee experiences.
- I developed our current website at [mypulse.ca](https://mypulse.ca) using **HTML, CSS, JS and jQuery**.

## skills

| Front-end web design  | Game design  | Languages   | other  |
|---|--|---|--|
| <ul style="list-style-type: none"> <li>• HTML5</li> <li>• CSS3</li> <li>• JavaScript</li> <li>• jQuery</li> <li>• Jade (Pug)</li> </ul> | <ul style="list-style-type: none"> <li>• C# (Mono, .NET)</li> <li>• Unity</li> <li>• Blender</li> <li>• Photoshop</li> </ul> | <ul style="list-style-type: none"> <li>• C# (.NET)</li> <li>• JavaScript</li> <li>• C++</li> <li>• C</li> <li>• Verilog</li> <li>• INTEL 8085 opcode</li> </ul> | <ul style="list-style-type: none"> <li>• Git</li> <li>• Visual Studio 2015</li> <li>• MATLAB</li> <li>• MS Office</li> </ul> |

## projects

**905:** A game about the Zeroth Law. Being developed at Broken Table Studio on UnityEngine in C#.

[github.com/dhruvwarrier/905](https://github.com/dhruvwarrier/905)  
[brokentablestudios.com/demo](https://brokentablestudios.com/demo)

**othello-ai:** An AI that plays the board game Othello. Features a command-line interface. Written in C.

[github.com/dhruvwarrier/othello-ai](https://github.com/dhruvwarrier/othello-ai)

**bending-moment-analysis:** Analyses the max bending moment of a train passing over a bridge. Features a 2D simulation. Written in C#.

[github.com/dhruvwarrier/bending-moment-analysis](https://github.com/dhruvwarrier/bending-moment-analysis)

**raycast-3d-maze-verilog:** A ray-casted 3D maze, in development in Verilog. Written for VGA monitors.

[github.com/dhruvwarrier/raycast-3d-maze-verilog](https://github.com/dhruvwarrier/raycast-3d-maze-verilog)

## education

University of Toronto St. George

27 King's College Cir, Toronto, ON

BASc Computer Engineering (GPA 3.27)

M5S 3H7, Canada

SEP 2017 – APRIL 2021 (expected)

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- Elected First Year Computer Engineering class representative, member of Faculty Council
- Member of UofT Robotics Association Humanoid team, performing research on high-level synthesis of MATLAB, C++/C code into hardware descriptor languages like Verilog