Dhruv Warrier

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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 working in research and in fast-paced, start-up-like environments. I'm capable at front-end web design, and have experience with **C# (Mono, .NET), JavaScript, C++, C, and Verilog.**

I am looking for an internship that will help me grow with your company.

experience

Founder of Broken Table Studio, indie game team   SEP 2017 - PRESENT

🔗 github.com/dhruvwarrier/905

I founded BTS, an indie game team based at University of Toronto with members from Toronto, USA, and India. I actively work on programming and 3D modelling/artwork 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#/Mono.**

- 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. It showcases our 3D modelling design and an early version of the movement/animation systems.

Research Assistant   DEC 2017 – JAN 2019

🔗 github.com/dhruvwarrier/city-builder

I worked as a research assistant with Dr. Tamer Diraby, creating software tools for civil engineers using insights from Dr. Diraby's research. Our focus was "city-builder", a cross-platform tool that can help civil engineers design roads and cities. I was part of a team of 2 that designed and implemented "city-builder" in **C#/Mono.**

- I developed a framework that allows the user to import a custom file format (**.city**) 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 have an initial prototype at github.com/dhruvwarrier/city-builder.

Co-founder and Developer at Pulse, Hatchery

🔗 mypulse.ca, 🔗 github.com/dhruvwarrier/pulse-website

I was part of the Hatchery NEST summer cohort (a start-up process at University of Toronto: uofthatchery.ca) as part of team Pulse. We explored 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 an opportunity to experience a highly iterative and dynamic design process.

- 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 Pulse's current website at mypulse.ca using **HTML, CSS, JS and jQuery.**

skills

Front-end web design	**Game design**	**Languages**	**other**
- HTML5 - CSS3 - JavaScript - jQuery - Jade (Pug)	- C# (Mono, .NET) - Unity - Blender - Photoshop	- C# (.NET) - JavaScript - C++ - C - Verilog - 8085 assembly	- Git - Visual Studio 2015 - MATLAB - Netbeans - Linux - Debian - MS Office

projects

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

🔗 github.com/dhruvwarrier/bending-moment-analysis

pi-mirror: A smart mirror platform for the raspberry pi. In early development using electron.js and express.js.

🔗 github.com/dhruvwarrier/pi-mirror

raycast-3d-maze-verilog: A 3D renderer for Cyclone V FPGAs, written in Verilog. Designed for VGA displays.

🔗 github.com/dhruvwarrier/raycast-3d-maze-verilog

othello-ai: An AI that plays the board game Othello, using a predictive method to look several moves ahead. Features a command-line interface. Written in C.

🔗 github.com/dhruvwarrier/othello-ai

education

University of Toronto St. George

BASc Computer Engineering (GPA 3.2)
SEP 2017 – APRIL 2021 (expected)

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- Elected First Year Computer Engineering class representative, member of Faculty Council