

# Jacob Applebaum

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## Education

**Bachelor of Science Degree (Honours)**  
**Computer Science** (Sep 2021 - Dec 2025)  
with Minor in Physics  
Brock University

**High School Diploma** (Sep 2017 – June 2021)  
Oakville Trafalgar High School

## Workplace Experience

**Behaviour Interactive** (Summer 2023)  
*Gameplay Programming Intern*

- Worked in Unreal Engine 5 and C++ on an unannounced project for the first 2 months
- Developed a prototype for another unannounced project in Unity using for the rest of the summer
- Used Scrum while working in a small team of talented developers and artists
- Created and completed code reviews for my own code as well as other programmers' code

**Evertz Microsystems Ltd.** (Spring 2022)  
*Facilities Management*

- Responsible for general maintenance of all buildings on the premises.
- Gained valuable industry knowledge by talking to actual electrical engineers

**Camp Walden** (Summer 2021 - 2022)  
*Senior Counselor & Specialist*

- Facilitated an eight week summer camp by taking care of kids of ages 7-9

## Volunteering

**Video Editor** (August 2019)  
*Golf Canada*

- Edited social media videos using Premiere Pro for the 2019 CP Women's Open

## Projects / Tech. Interests

(see my projects on my website - [jacobswockyworld.ca](http://jacobswockyworld.ca))

### FPGAs and Verilog

- Currently porting the VGA graphics card schematics (see below) to Verilog in Quartus Prime II, so I can more quickly develop new hardware features on an [Intel MAX10 development board](#) to avoid tedious wiring.
- In Winter 2024, I will be doing a graphics-related FPGA project for an optional, open-ended project course with a CS faculty member supervising my work.

### Custom VGA graphics card ([link to project](#))

- Built a working breadboard circuit to produce a VGA video signal with discrete TTL chips
- Can be interfaced with the 6502 computer (see below) for graphical programs.

### 6502 Breadboard Computer ([link to project](#))

- Built a working 8-bit computer with CPU, ROM, RAM, VIA, LCD display chips all on breadboards.

### Graphics familiarity ([link to project](#))

- Worked on a game with a custom 3D gam engine with other programmers using [LWJGL](#) to become more familiar with OpenGL.
- Did multiple graphics projects in a Computer Graphics course, COSC 3P98.

### Website - [jacobswockyworld.ca](http://jacobswockyworld.ca)

- Created at age 16 to showcase my videos and games, now I show lots of kinds of projects. I used PHP, JS, CSS, and bare HTML 5.

## Transferable Skills

### Initiative

- Deep passion for digital electronics.
- Constantly doing projects outside of school to hone programming knowledge / skill-set

### Fast Learner / Wide Skill Range

- Familiar with a large tech stack.
- Able to quickly acquire new technical skills by practicing them outside of work/school