

Taylor Whatley

High School Student

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Skills

- Experienced with C++, HTML/CSS/JS, C#, Java, Swift, Vue.js, Node.js, LLVM...
- Trained in First Aid.

Experience

- Co-founder and Developer for **Prepri** (2019 - 2020) <https://prepri.app>
 - Company started with a \$15000 deal with local charity **Food for Life** to help build a training program to help train their volunteers.
 - Using Vue.js, Node.js and GraphQL to create a fast end user experience.
 - Project is now finished and Prepri is now incorporated in Delaware.
- Developer and macOS Maintainer for Open Source Emulator **Vita3K (2018-2020)**
 - Contributed to numerous graphical, logistical and performance improvements.
 - Reverse engineered GPU and system library for a better understanding of the console.
 - Created initial implementation for Vulkan backend, allowing for better performance and compatibility for macOS.
- **Tech Under Twenty** Executive, Chapter Leader and Developer (2017 - 2020)

- Runs chapter at school to help ignite and encourage technology interest in students.
- Used Laravel, Angular and .NET to create a chapter management tool for chapter leaders.
- Worked at **YMCA** as Lifeguard and Swim Instructor (2019 - 2020).

Education

Abbey Park High School (2017 - 2021):

- 97% average in Grade 12.
- Honor Role Student (2017 - 2020).
- Placed in clustered classes (prviously in gifted program).
- President and executive of extracurricular "Tech Under Twenty" chapter (2017 - 2020).

Awards

- **Hack the North 2020++ Finalist** (2021): Selected as one of 24 finalists for Waterloo's annual hackathon (3000+ participants).
- **Apple Swift Student Challenge Winner** (2020): Selected as one of 350 Swift Student Challenge winners from around the world based on swift programming ability.
- **Hack the Northeast Machine Learning Prize and 1517 grant** (2020): Awarded \$11000 in grant money for building a virtual secretary that uses ML to schedule better times.
- **PC Hacks 1st Place** (2019): Awarded 1st place for building a tool to improve reading accuracy for dyslexic individuals using spaced repetition.
- **Abbey Park Hackathon 1st Place** (2019 - 2020): Awarded 1st place for delivering outstanding entries focusing on education and programming tools.
- **Halton Skills in Web Design 2nd Place** (2019): Awarded 2nd place in web design and development.

- **Tech Under Twenty Cup Competition Finalist** (2018 - 2019): Built a learning app designed to provide an intuitive and customizable interface to learners and teachers alike.
- **National Life Guard** (2019): Awarded N.L. status for proficiency in First Aid.

Major Projects

- **pagent**: A "non-compromisolution" language for creating applications (C++, 2020): A custom language built from scratch specifically for designing UIs and being easy to learn. <https://github.com/1whatleytay/pagent>
- **psp2spvc**: A shader compiler for the PS Vita (C++, 2019 - 2020): Using compiler theory and the SPIR-V standard to create the first functional open-source compiler for the PowerVR SGX543+. <https://github.com/1whatleytay/psp2spvc>
- **kophi & kona**: An open-source implementation of the Java JVM (C++, 2019): A java .class file reader and a functional JVM built to be easy to pick apart and understand. <https://github.com/1whatleytay/Kophi>
<https://github.com/1whatleytay/Kona>
- **MK & improv**: A language built for developing Minecraft datapacks (C++, 2018): MK provides a C-style interface with type checking for quickly building amazing apps. <https://github.com/1whatleytay/MK>