# >HAODA FAN

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## Education

### Bachelor's of Computer Science, University of Waterloo (2016 to 2021)

* Alumnus of the Waterloo Math in Europe Program (Summer, 2017).
* Took courses on Concurrent programs, Operating Systems and Sequential Programming using MIPS and OS161-kernel.

## Volunteering

### Mentor, Hackathons and Tech+

* Ran workshops on web development with HTML CSS, and JavaScript.
* Took initiative in leading the mentors to helped facilitate coaching for more students

### Head Leader, Waterloo Orientation

* Responsible for coordinating a team of 8 volunteers to lead over 100 first year students in their orientation activities.
* Coordinated with staff and other team leaders by radio.
* Trained and certified in Emergency First Aid

| Languages | Technologies |
|-----------|--------------|
| * C | * Unity3D |
| * C# | * NodeJS |
| * C++ | * React |
| * Python | * PostgreSQL |
| * Java | * ExpressJS |
| * HTML/CSS | * JQuery |
| * JavaScript | * ASP.NET |
| * SQL | * IBM Cloud |
| * MIPS | * Google Cloud |
| * French | * Firebase |
| | * OS 161 |

## Work Experience

### Gameplay Programmer, Blackbird Interactive          Sept. 2020 to Present

* Developed new gameplay systems, UI components, and workflow improvements for an upcoming real-time action-strategy title, set to release in late 2022.
* Collaborated with artists and designers in an iterative gameplay design process.
* Worked in an in-house C++ engine based on Entity Component System architecture.

### Software Engineering Intern, Inkling          May. 2020 to Aug. 2020

* Created new endpoints and features for Inkling's RESTful API.
* Collaborated with engineers to perform both manual and scripted QA, find bugs, push hotfixes, and deliver weekly releases.
* Performed code reviews for the team, giving detailed feedback and approving pull requests.

### Co-op Programmer, Next Level Games          Sept. 2019 to Dec. 2019

* Worked with both programmers and content creators to fix bugs and create workflow improvements for NLG's tools and game engine.
* Created additional control schemes and a flexible hotkey system to help the studio transition its toolset from 3ds Max to Maya.
* Designed and built a new animation blending tool for NLG's Character Editor.

### Associate Developer, Motive Studios (EA)          Jan. 2019 to Apr. 2019

* Developed workflow improvements for a variety of tools used by artists, writers, voice directors, designers, and other content creators.
* Implemented new mechanics and gameplay components into production code based on the design and later feedback of gameplay designers and testers.
* Worked in C# and C++ on large codebases with over 3 million lines, such as Frostbite and the Frostbite Editor.

## Personal Projects

### BunkerBoxerBot          Jul. 2019 to Aug. 2019

* An AI which plays the classic real-time strategy game Starcraft, developed for the **2019 Aiide Starcraft AI competition**.
* Manages the economy, production of units and buildings, collection of information, and directs individual units during combat.
* Built in C++ using the open-source BWAPI library to interact with the game.

### Gachoful Girlfriend          June 2019

* A rhythm-based bullet-hell dating simulator where the main love interest is a goose
* Won **most polished game** of the summer 2019 Waterloo Game Jam

### Cozy Roads          Sept. 2018

* **Won Best Use of Google Cloud Platform** at Hack The North, a 36-hour hackathon at the University of Waterloo.
* Created to help people find the safest possible route to their destination.