



# Alexander McRae

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## Objective



To contribute my skills and continue to learn as a Software Development Engineer at A Thinking Ape.

## Education



University of Victoria  
*Bachelor of Science in Computer Science, Minor in Business*

September 2017 - present

## Relevant Skills



### Programming Languages

C, Rust, Go, Haskell, Python (Pandas, Numpy, Matplotlib), Java

### Web Development

Typescript, React, Vue, Nodejs, MongoDB, SQL, Express

### Graphics

Ray Tracing, OpenGL, WebGL

## Projects



### Ray Tracer [github.com/McRaeAlex/tiny-raytracer](https://github.com/McRaeAlex/tiny-raytracer)

Implemented an extensible rendering engine with lighting, reflection, and refraction.

### Tiny URL [github.com/McRaeAlex/tinyURL](https://github.com/McRaeAlex/tinyURL)

Developed a web application that compresses URL's, allowing the user to go to the shorter URL and see the original website.

### Snake Engine [github.com/McRaeAlex/dimensional-snake-engine](https://github.com/McRaeAlex/dimensional-snake-engine)

Build an implementation of the game Battle Snake using an entity components system (ecs).

### Cat Camera [github.com/McRaeAlex/prettykitty](https://github.com/McRaeAlex/prettykitty)

Using a Raspberry Pi, Twilio, and Nodejs, created an application that takes pictures of cats and sends them to the user in response to a text message.

# Experience



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## **Battle Snake 2019** [github.com/McRaeAlex/BattleSnake2019](https://github.com/McRaeAlex/BattleSnake2019)

Participated in a local coding competition and created a HTTP server which plays a version of the game snake.

## **Advent Of Code** [github.com/McRaeAlex/AdventOfCode2018](https://github.com/McRaeAlex/AdventOfCode2018)

Participated in global coding competition facing various code challenges leading up to christmas.

## **Web Developement Club**

Took part in discussions, talks and projects in a group regarding web technologies.

## **Rocket Club**

Predicted the landing of the rocket using real time data coming from the rocket. Gained experience working with large team with multiple sub teams.