Alexander McRae

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Education

University of Victoria   September 2017 - present
Bachelor of Science in Computer Science, Minor in Business

Relavent Skills

Programming Langauges

Rust, C/C++, Go, Python, Elixir, JavaScript, Bash, C#, Awk

Other

Git, SQL, Docker, Linux, RISC-V, Vulkan, React, Vue, Webpack, Travis-ci

Experience

Graphics Programmer at Suntracker Technologies Ltd (Sept 2019 - April 2020)

- Developed a Rhino3D rendering engine using specialized global illumination algorithms for analysis of CAD models.
- Participated in Illumination Engineering Society talks on industry standards and cutting edge technologies in the industry.
- C#, C/C++, OpenGL, Rhino3D, Win32 Api

Campus Ambassador at BattleSnake (Jan 2020 - Current)

- Worked with tech-oriented sutdent groups to organize and run Battlesnake events, tutorials, and competitions
- Helped develope starter code templates in many langauges for new contestants

Projects

MobilityFirst: TCP Extension mcraealex.github.io/research/csc466

- Created a protocol and programming interface for creating sockets which allow for peers to migrate to different networks and change IP addresses without losing connections.

AlpineToast: Npm package to create toasts github.com/McRaeAlex/AlpineToast

- Created an extensible JavaScript library which allows users to create customizable toasts both programmatically and through plain HTML attributes.
- Typescript, Webpack, Rollup, TailWindCSS

Village: Social media for small friend groups github.com/McRaeAlex/village

- Developed a social media application which allows users to take control of their social media presence and only share with whom they feel comfortable.
- Elixir, Postgresql, Javascript, HTML, CSS, CRUD, Websockets, PubSub, Docker

Connector: HTTP Framework github.com/McRaeAlex/Connector

- Designed and implemented a HTTP library, language extension, and example project to better understand how high performance web servers operate. Includes pattern matching router and demo application using an async runtime.
- Rust, HTTP, Async IO