

# Justin Michaud

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## EDUCATION

**UNIVERSITY OF WATERLOO**  
**2A COMPUTER SCIENCE**  
Sept 2016 - Present | Waterloo ON

## BLOG POSTS

- Super Mario Bros. Level Generation Using Torch-RNN

## LINKS

Portfolio:

More projects and full source code available at [justinmichaud.com](http://justinmichaud.com)

## LANGUAGES

Medium Projects:

Java, Ruby, Rust

Small Projects:

Javascript, Python

Have Used:

PHP • C & C++ • Racket (LISP)

Frameworks/Technologies:

EmberJS • Arduino • Android •

OpenGL • Linux

## INTERESTS

Music:

- 2nd Oboe for the Waterloo University Orchestra, W2016

Technical:

- Participant of Hack the North 2016, MHacks 8
- Retro computer fan; I enjoy programming in BASIC for my Commodore 64

## EMPLOYMENT EXPERIENCE

**PAGERDUTY | SOFTWARE ENGINEERING INTERN**

May 2017 – Aug 2017 | Toronto, ON

- Full stack development using Ruby, MySQL, Zookeeper, Ember and iOS/Android SDKs
- Optimized queries, indexes, denormalized columns and UX to support accounts with hundreds of thousands of incidents

**SUDBURY ACTION CENTRE FOR YOUTH | PAID CONTRACTOR**

July 2016 – Aug 2016 | Sudbury, ON

- Developed web application to track clients using Python and Django

## PROJECTS

**NES EMULATOR | PERSONAL PROJECT**

June 2017 - Aug 2017

- Created NES emulator in Rust, capable of playing games including Super Mario Bros and Donkey Kong
- Includes optional game modifications by hooking into memory operations
- Allows importing/exporting Super Mario Bros levels, used in machine learning project (see blog)
- Fully playable online using WASM and Emscripten - See portfolio

**ANYSOFTKEYBOARD | OPEN SOURCE CONTRIBUTOR**

Dec 2016 - Present

- Contributed gesture typing feature to create first open-source swipe keyboard for Android (development builds only)

**MOTION TRACKING SPACE SHOOTER | MHACKS 8 PROJECT**

Oct 2016 | Detroit, MI

- Created a shooter game for Google Cardboard with Java and OpenGL
- Used BoofCV running on a laptop to track the position of player's head, allowing them to shoot enemies and dodge obstacles