# Justin Michaud

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# **EDUCATION**

UNIVERSITY OF WATERLOO, 2A COMPUTER SCIENCE

Sept 2016 - Present | Waterloo, ON

# **EXPERIENCE**

### PAGERDUTY, SOFTWARE ENGINEERING INTERN

May 2017 - Aug 2017 | Toronto, ON

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

## SUDBURY ACTION CENTRE FOR YOUTH, CONTRACTOR

Aug 2016 | Sudbury, ON

• Developed web application to track clients using barcodes, with Python and Django

## YMCA, I.T. ASSISTANT

June 2014 - Aug 2016 | Sudbury, ON

- Developed public job board using PHP, Twig and MySQL; used by hundreds of clients, 20 job counselors
- Built remote support tool that used UDP hole-punching to tunnel TCP connections without port forwarding

**PROJECTS** 

More at justinmichaud.com

#### **NES EMULATOR**

Rust, 6502 ASM

#### **ANYSOFTKEYBOARD**

Java | Contributor

- Created NES emulator capable of playing Super Mario Bros, Donkey Kong
- Included game modifications for Super Mario Bros. not possible on original hardware

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

## ML LEVEL GENERATION Rust, Torch-RNN

- Trained Torch-RNN on Super Mario Bros. levels
- Modified emulator to import generated levels
- Wrote blog post documenting results

#### VR SPACE SHOOTER

Java, OpenGL

 Used Google Cardboard + BoofCV on a laptop to track the position of player's head, allowing them to shoot enemies and dodge obstacles

# **SKILLS**

Medium Projects: Java, Ruby, Rust, Android, MySQL

Small Projects: C++, Python, ElasticSearch, Arduino, Javascript, EmberJS, iOS

Have Used: PHP, C, Racket

## **ACTIVITIES**

Orchestra@UWaterloo 2nd Oboe Jan 2017 - Apr 2017 UW Concert Band Club Oboe Sep 2017 - Apr 2017

• Typing in BASIC games for my Commodore 64