

Justin Michaud

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TECHNOLOGIES

- C++
- Java
- Scala
- Rust
- OpenGL

INTERESTS

- Free & Open Source Software
- Browsers
- Graphics
- Emulation
- Rust

HOBBIES

- Playing Oboe
- Collecting old computers (Mac classic, Powerbook 190cs and Commodore 64 so far)

EDUCATION

UNIVERSITY OF WATERLOO

4A COMPUTER SCIENCE

Sept 2016 - April 2021

Waterloo, ON

EXPERIENCE

APPLE, JAVASCRIPTCORE INTERN

Jan – April 2020

C++ | Cupertino, CA

- Implemented inline caching optimizations for property deletion, giving 1% speedometer progression (blog post)

May – Aug 2019

- Implemented strength reductions and instruction selection patterns to improve code generation, giving 1% speedometer progression.
- Implemented WebAssembly Reference Types proposal, allowing opaque JSValues to be used as values within WASM code.

APPLE, WEBKIT LAYOUT & RENDERING INTERN

Sep 2018 – Dec 2018

- Developed prototype of CSS Painting API.

PAGERDUTY, SOFTWARE ENGINEERING INTERN

Jan 2018 – April 2018

Kafka, Scala, Akka | San Francisco, CA

- Built Scala/Akka Streams service to allow filtering and fanout of kafka records to multiple clusters
- Went on-call for team's mission-critical services

PAGERDUTY, SOFTWARE ENGINEERING INTERN

May 2017 – Aug 2017

Ruby, MySQL, EmberJS | Toronto, ON

- Optimized MySQL queries to allow incidents dashboard to support millions of records without any maintenance downtime

YMCA, SOFTWARE & IT ASSISTANT

Jun 2014 – Aug 2016

Java, PHP | Sudbury, ON

PROJECTS

More at justinmichaud.com

ANYSOFTKEYBOARD CONTRIBUTOR

Java, C++, Android, JNI

- Contributed simple gesture typing feature to open source Android keyboard AnySoftKeyboard; suffers from poor accuracy.
- Compares input path to pre-computed simulated paths, measuring distance along path to find most likely word.

RUST NES EMULATOR

Rust

- Created NES emulator to learn rust
- Included game modifications not possible on original hardware by hooking into memory reads/writes

GLIDEN64

C++, OpenGL

- Created demo adding stereo rendering and google cardboard support to GlideN64's high-level graphics emulator