

Justin Michaud

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TECHNOLOGIES

- C++
- JavaScript
- OpenGL

INTERESTS

- Free Software
- Browsers
- Compilers
- Graphics
- Emulation

HOBBIES

- Coffee
- Oboe
- Retro Computers

EDUCATION

UNIVERSITY OF WATERLOO COMPUTER SCIENCE (BCS)

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 – 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

RUST NES EMULATOR

Rust

- Created NES emulator to learn rust ([try it yourself](#))
- 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 VR support to GlideN64's high-level graphics emulator
- Can play Super Mario 64 in VR, albeit with many graphical artifacts