

# Paul Olteanu

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## Work Experience

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### Nymi Inc

Toronto, ON

SDK DEVELOPER

September - December 2018

- Optimized Phoenix server to minimize latency in Citrix environments
- Interfaced with Windows APIs to support Citrix
- Refactored handling of messages from Nymi Band and NEAs using **Serde**
- Key Technologies: **Rust, Elixir + Phoenix, Windows APIs**

### #paid Inc

Toronto, ON

FULL STACK DEVELOPER

July - August 2017, January - April 2018

- Created full data collection project spec and timeline with CTO, specifying scope of versions 1 to 3, and user stories for each version
- Architected parallelized job pipeline using Elixir's **GenStage** library for worker backpressure and rate limiting
- Processed **30,000+** users/day, allowing for better campaign targeting and the discovery of new influencers to onboard
- Configured **AWS EC2** instances for staging and production use, and set up **Squid** proxy servers for request caching
- Led project updating multi-step form for clients to create campaign proposals, increasing amount of data collected from RFPs
- Key Technologies: **Ruby on Rails, Elixir, AWS EC2 & IAM, Postgres, Mongo**

## Projects

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### Tay Racer

A CONTINUALLY WIP RAY TRACER

December 2018

- Multiple cameras can be arbitrarily positioned for every scene
- Allows scenes to be exported as PNGs
- Implemented in **Rust**

### CHIP-8

AN EMULATOR FOR THE 35 OPCODE CHIP-8 INTERPRETED LANGUAGE

October 2017

- Handles all 35 opcodes + legacy mode for opcodes that have traditionally been misimplemented
- Interprets binary .ROM files (CHIP-8 machine code)
- Implemented in **C** using **SDL2**

### PVCS

VERSION CONTROL SYSTEM

January 2017

- Supports commits with messages, reverting, and full logs
- Stores commits as diffs to reduce storage footprint, with complete backups every  $n$  commits to increase revert speed
- Implemented in **Python** using **Click**

### Proplist

IMPLEMENTATION OF THE 'KEYWORD' API FOR BINARY KEYS

October 2015

- Contributed to library adding binary (string) key support to keyword lists by re-implementing the Keyword API
- **Published** on Hex (Elixir's package manager), with **~1,000 installs**
- Implemented in **Elixir**

## Education

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### University of Waterloo

CANDIDATE FOR B.A.S. IN COMPUTER ENGINEERING. CURRENTLY 2A

Expected Completion Apr. 2022