# Marc Mailhot

Student Developer - University of Waterloo Computer Science

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# Experience

#### Jane Street Europe

Developer Intern, Sept 2016 - Dec 2016

- Designed and developed a type inference and schema generation system to build queryable Postgres databases from untyped s-expressions
- Wrote performance-sensitive OCaml code handling and processing high volume message streams
- Rewrote distributed data analysis to use an efficient binary data format, resulting in 10x performance improvements

#### Kik Interactive

Web Developer (Co-op), Jan 2016 - Apr 2016

- Optimized a high volume messaging system in Python, leading to a 25% drop in request latency
- Was the primary designer and developer of a user facing chat bot
- Designed, wrote and documented an upcoming open source Python SDK for our API platform

#### Kik Interactive

Web Developer (Co-op), Apr 2015 - Aug 2015

- Reengineered core server side Python code handling >10M daily messages
- Built infrastructure for the handling of image and video content in a high-volume environment on the Google Cloud Platform

## Projects

Dayder 2016

- Web-app for quickly finding spurious correlations among 390,000 datasets
- Developed a Rust backend efficiently finding correlations using a custom binary time series data protocol
- Designed and wrote CSS for the front-end design

Femto Chat 2016

- Built a prototype IRC Client in D in one weekend
- Developed a highly optimized IRC serialization and deserialization code using D templates

Newsmash 2015

- Implemented a Clojure web app and Chrome extension to provide groups of articles on the same topic through text analysis
- Designed a easy to use, visually appealing web interface
- Winner, IBM Prize, UofT Hacks 2015
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### Education

### **University of Waterloo**

Candidate for Bachelor of Computer Science, Sept 2014 - Present

- 4.0 Cumulative GPA
- 100% grade in two advanced level CS courses

## About

Backend-focused full stack developer, with a special interest in programming languages, functional programming, reactive programming, systems architecture, distributed systems and natural language processing. Currently a 3A Computer Science student at the University of Waterloo and seeking a 4 month internship beginning in May 2017.

## Skills

#### Languages

OCaml, Python, Clojure, Haskell, HTML5, Javascript, C, C++, D, Nix, CSS, SASS, C#, Dart, Rust, Racket, Java

### **Technologies**

webapp2, Google Cloud Platform, Flask, PostgreSQL, Om, Angular, mongoDB, Android, Docker, Node.js, Linux, Mercurial, Git, NixOS