# Simon Krafft

Software Engineer

## Personal Info

**Address**

40 Water Street
Eastchester, NY

**Phone**

914-620-7262

**E-mail**

krafftsimon@gmail.com

**Portfolio**

http://krafftsimon.com

**GitHub**

https://github.com/krafftsimon

**LinkedIn**

www.linkedin.com/in/krafftsimon

## Skills

Problem Solving

Quick Learner

Communication / Teamwork

Algorithms / Data Structures

## Technologies

HTML / CSS

React / Redux

Angular 2+

Node.js / Express.js

Socket.io

Compute Engine | Google Cloud

Git

## Programming Languages

Javascript / Python / C++ / Java / Go /
VHDL

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I am an innovative Software Engineer offering experience with various programming languages and technologies, as well as knowledge about data structures, algorithms, design principles, and complexity-analysis theory. I have significant exposure to modern Front-End frameworks like Angular and React. I am eager and very capable of learning new technologies. I enjoy interacting with customers. I consistently take initiative when given creative license, and I am comfortable collaborating with clients and internal engineering/product/design teams to gather requirements.

## Experience

**2018-02 - present**

### Full-Stack Developer

*AlgoExpert*

- Contributed to the responsiveness of the website, allowing it to become fully usable on mobile devices and thereby increasing ad campaign conversion rates and the number of daily visits to the website.
- Designed and implemented a service to continually check the health of the website, tracking errors and average request duration.
- Created a User Interface that communicates with the new service's API to organize and display various information.
- Implemented solutions and tests for 60 algorithm questions in C++ and Java.

**2013-06 - 2013-08**

### Marketing Clerk

*Christofle Silver*

- Updated and Re-designed parts of the store catalog using Adobe InDesign and Photoshop.
- Served on the design team and learned to utilize colors to influence customers purchases.
- Submitted a new design and decoration pattern in-store.

## Education

**2012-09 - 2017-04**

### McGill University, Bachelor of Engineering - Computer

**Revelant Coursework:** Algorithms and Data Structures, Operating Systems, Telecommunication Networks, Software QA, Design Principles, Computer Architecture, Microelectronics, Digital System Design, Microprocessors.

## Projects

### Mean Stack Web App

Single-page web application with Angular 4, using Express.js (Node.js) on the server and MongoDB as the DBMS. Includes Authn/Authz functionality and allows the user to generate a workout routine and track/save their progress (gainz-tracker.com).

### Online Multiplayer Game

Pong mini-game using socket.io; implemented an authoritative server architecture to prevent cheating; analyzed network patterns and profiled the client-server interactions to reduce latency and improve gameplay experience (pong.krafftsimon.com).

### Fractal Rendering

Website to visualize iterated transformations of numbers in the complex plane and approximate their divergence; used the HTML5 Canvas API to provide a fast rendering mechanism and interactive interface (available at fractal.krafftsimon.com).

### Computer Architecture

Lead a team of 4 to design a five-stage pipelined MIPS processor in VHDL with branch prediction (1-bit or 2-bit), forwarding, and hazard detection.

### Java Development:

Team project to design a Bomberman game from scratch, including the UI; applied the agile pattern and lead/managed week-long sprints for a 5 person team.