

SIMON KRAFFT

Eastchester, New York | 914.620.7262 | krafftsimon@gmail.com
Personal Website / Portfolio: krafftsimon.com

SOFTWARE ENGINEER

I am an innovative Software Engineer offering skills in Java, JavaScript, and C++ development, as well as data structures, algorithms, design principles, and complexity theory. I have experience with modern Front-End frameworks like Angular and React. I am eager to learn new technologies and enjoy interacting with customers. I consistently take initiative when given creative license. I am comfortable collaborating with clients and internal engineering/product and design teams to gather requirements.

EDUCATION AND PROFESSIONAL DEVELOPMENT

- **OFFENSIVE SECURITY CERTIFIED PROFESSIONAL (OSCP)** – Expected April 2018
- **BACHELOR OF SCIENCE – COMPUTER ENGINEERING – 2017**, McGill University, Montreal, Quebec, Canada
- **Relevant Coursework:** Algorithms and Data Structures, Operating Systems, Telecommunication Networks, Software QA, Design Principles, Computer Architecture, Microelectronics, Digital System Design, Microprocessors

PROJECTS

- **Penetration Testing with Kali Linux:** Introduction to latest hacking tools and techniques. Covered and applied different network penetration strategies through an online course and fake vulnerable networks.
- **Mean Stack Web App:** Wrote a single-page web application with Angular 4, using Express.js (Node.js) on the server and MongoDB as the DBMS. The application includes Authn/Authz functionality and allows the user to generate a workout routine and track/save their progress (Available at gainz-tracker.com).
- **Online Multiplayer game:** Pong mini-game created using socket.io. Has an Authoritative server architecture to prevent cheating. Analyzed network patterns and profiled the client-server interactions to reduce latency and improve gameplay experience. (Available at pong.krafftsimon.com).
- **Java Development:** Worked on a team project to design a Bomberman game from scratch, including UI. Applied the agile pattern and lead/managed week-long sprints for a 5 person team.
- **Fractal Rendering:** Created a 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.

The above-mentioned web applications are backed by the same set of Linux VMs on Google Compute Engine and use a reverse-proxy to route requests to the right application.

PROFESSIONAL INTERNSHIP

Christofle Silver, Inc., New York City, New York (summer 2013)

MARKETING CLERK / INTERN

- 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.

TECHNOLOGIES

Programming: JavaScript, HTML, CSS, TypeScript, Java, C++, VHDL, Python (Limited Experience – Assembly - MIPS, ARM).

Web Development: Angular 5, React, Redux, Express.js, Node.js, MongoDB, Socket.io (Limited Experience – GCE, AWS).

HONORS AND ACHIEVEMENTS

Placed 345th out of 30,577 participants in the “Kangourou des Mathématiques” math competition.