

SIMON KRAFFT

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Personal Website: krafftsimon.com

SOFTWARE ENGINEER

Innovative Software Engineer offering skills in Java, JavaScript, and C++ development, data structures, algorithms and design principles. Provide familiarity with complexity theory and databases, and experience with a variety of programming languages. Present a desire to learn new technology and enjoy interacting with customers. Consistently take initiative when given creative license. Collaborate with clients and internal engineering/product and design teams to gather requirements.

EDUCATION AND PROFESSIONAL DEVELOPMENT

BACHELOR OF SCIENCE – COMPUTER ENGINEERING, McGill University, Montreal, Quebec, Canada

Relevant Coursework: Communication Systems, Telecommunication Networks, Microelectronics, Control Systems, Algorithms and Data Structures, Operating Systems, Software QA, Digital System Design, Microprocessors, Software Engineering, Design Principles and Methods, Computer Architecture

FRENCH BACCALAUREAT S – OIB w/merit, FASNY, New York, NY

PROJECTS

- ✓ **Mean Stack Web App:** Website utilizing Angular 4 on the front end, Node.js and Express.js on the backend, and MongoDB. Allows user to create an account, log-in, generate a gym program, and save their progress (Available at gainz-tracker.com).
- ✓ **Online Multiplayer game:** Pong mini-game created using socket.io. Authoritative server architecture to prevent cheating. Uses various techniques to hide the latency from the player (Available at pong.krafftsimon.com).
- ✓ **Java Development:** Worked on a team project to design a Bomberman game from scratch, including UI.
- ✓ **Robotics:** Worked on a team project to design a robot. Achieved 3rd place out of 20+ teams.
- ✓ **Electronics:** Developed a low-cost, passive, chipless, humidity sensing RFID tag
- ✓ **Computer Architecture:** Designed a five-stage pipelined MIPS processor in VHDL with branch prediction (1-bit or 2-bit), forwarding, and hazard detection.
- ✓ **Internet of Things:** Read data from an accelerometer, transfer data using UART connection, send data to mobile phone using Bluetooth, transfer the data to an AWS bucket and process it.
- ✓ **Fractal Rendering:** Created website to visualize the Mandelbrot Set. Allows the user to zoom in and change various parameters (Available at fractal.krafftsimon.com).

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.

TECHNOLOGY

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

Web Development: Angular 4, Express.js, Node.js, MongoDB, Socket.io (Limited Experience – GCE, AWS).

Simulation Program w/Integrated Circuit Emphasis (SPICE): Various circuit design, including Electrocardiography Measurement Circuit, Op-amp, and AM receiver.

HONORS AND ACHIEVEMENTS

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