Sebastian Janeczek

Full Stack Developer | Computer Engineer
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Portfolio;

SUMMARY OF QUALIFICATIONS

- 3rd-year Computer Engineering CO-OP student at the University of Ottawa.
- Coding Languages: HTML, CSS, JavaScript, Java, Python, C++, Scheme, Go, and Prolog.
- Tools: Arduino IDE, MATLAB, Multisim, GitHub, VS Code, Quartus II and Android Studio.
- Experience with microcontrollers and single-board computers such as Arduino, ESP32, and Raspberry Pi.
- Strong in data structures, object-oriented programming, compiler design, and concurrent programming.
- Skills with hands-on circuit analysis and components (Resistors, Capacitors, Diodes, MOSFETs, etc.)
- Communication and teamworking skills; bilingual (English, basic French)

EDUCATION

Bachelor of Applied Science, Computer Engineering (CO-OP) *September 2023 - May 2028*
University of Ottawa (Ottawa, ON)

- Expected Graduation date: May 2028
- Relevant courses: Computer Engineering, Circuit Theory, Introduction to Software Engineering
- Admission scholarship of $2,000

RELEVANT SKILLS

Engineering & Design

- Designed and analyzed electrical circuits involving AC/DC sources, resistors, capacitors, and inductors.
- Knowledge of electrical and magnetic phenomena, including electromagnetic fields and spectrometry.
- Experienced with current/voltage sources, function generators, and embedded system development using FPGA boards (Altera DE2-115) and microcontrollers such as Arduino and ESP32.
- Hands-on experience with microcontrollers and SBCs, including Arduino, ESP32, and Raspberry Pi.
- Conducted circuit analysis and implemented solutions involving diodes, MOSFETs, filters, and rectifiers.

Software Development

- Proficient in object-oriented programming (OOP), applying inheritance, polymorphism, and encapsulation across projects and different coding languages.
- Experienced in web development, creating responsive and interactive sites with HTML, CSS, and JavaScript.
- Applied language learning and processing techniques to develop algorithms enhancing automation.
- Knowledgeable in data structures, compiler design (lexical/syntax analysis), and Java concurrency (semaphores, mutual exclusion).
- Developed Android apps with integrated Firebase for database management.
- Solid understanding of CPU architecture, memory hierarchy, and digital logic.

Technical Skills

- **Languages**: HTML, CSS, JavaScript, Java, Python, C++, Go, Scheme, and Prolog.
- **Tools**: GitHub, Android Studio, Eclipse, VS Code, MATLAB, Multisim, Quartus II, Altera DE2-115
- **Operating Systems**: Windows, macOS
- **Additional Expertise:** Probability, statistics, and technical communication

WORK EXPERIENCE

Summer R&D intern – *Automation Projects (Software & Electronics)* *June 2025 - August 2025*

- Led research and prototyping of AgTech automation solutions, integrating microcontrollers, sensors, and electronic components to create scalable hardware setups.
- Designed and implemented software tools with scripting languages to automate data collection and control hardware, increasing the efficiency of testing workflows.
- Conducted iterative testing and troubleshooting, refining prototypes to improve reliability and operational performance.
- Created clear documentation and test cases to support knowledge transfer and development.
- Applied academic knowledge to real-world challenges, enhancing problem-solving skills and practical engineering expertise.

PROJECTS AND EXPERIENCE

Task Manager – *Personal Project* *July 2025 - August 2025*

- Built a task management web app using HTML, CSS, and JavaScript, improving usability and responsiveness.
- Implemented modular features for task creation, storage, cross-page display, and a dynamic calendar view.
- Strengthened front-end development skills through DOM manipulation and efficient client-side data handling.
- GitHub Repository: https://github.com/SOULDUST9/Task-Manager
- Running Website: https://souldust9.github.io/Task-Manager/

Language Learning Project – *Personal Project* *June 2025 - present*

- Completed mini-projects and exercises across multiple languages to strengthen core programming knowledge.
- Developed skills in HTML, CSS, and JavaScript through building and styling responsive web pages.
- Practiced C++ fundamentals including basic syntax, control structures, and object-oriented concepts.
- Ongoing project with plans to expand into additional languages and frameworks.
- GitHub Repository: https://github.com/SOULDUST9/LangLearning-

Rentify – *School Group Project* *September 2024 - December 2024*

- Developed a rental management app with a 4-member team, delivering a functional MVP that streamlined property listings and tenant management.
- Improved app performance and UX by contributing to core coding, bug fixing, and UI enhancements, resulting in smoother navigation and faster load times.
- Ensured reliable feature deployment by participating in integration, testing, and refinement, validated by successful project demonstrations and positive user feedback.

Basic Computer Organization – *School Group Project* *November 2024 - December 2024*

- Collaborated with a partner to complete a series of labs focused on Basic Computer Organization, exploring the internal components of computers, including CPU architecture, memory hierarchy, I/O operations and programming logic.
- Hands-on work with digital circuits and hardware simulation tools, reinforcing concepts like logic gates, ALU (Arithmetic Logic Unit), and control units.
- Conducted performance testing on simulated computer systems to evaluate and optimize the execution of basic operations.