Maksim Stroikin

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Skills Summary

Programming: C/C#/C++, Java, VHDL, MATLAB, HTML, CSS, GitHub
Hardware: Arduino, Raspberry Pi, Xilinx ISE, Nexys FPGA Board
Tools: ROS2, AutoCAD, SolidWorks, Blender, WSL, Linux, Microsoft Office, Google Workspace, Adobe Photoshop

Education

Bachelor of Engineering, Engineering Systems and Computing (Co-op)   September 2023 - Present
University of Guelph, Guelph, ON
- **Concentration:** Mechatronics
- **Relevant Courses: Completed:** Programming for Engineers (85%), Object-Oriented Programming (96%), Engineering and Design I (88%), Data Structures (87%) Fluid Mechanics (86%), and Digital Systems Design. Successfully completed 16 engineering courses with an overall average above 77% (3.3/4.0 GPA).

Engineering Projects Experience

4-bit Arithmetic Logic Unit   November 2024
University of Guelph - Digital Systems Design Course, Guelph, ON
- Designed and implemented a 4-bit Arithmetic Logic Unit (ALU) using VHDL, incorporating half adder, full adder, logic circuit, B-logic input, and arithmetic circuit modules.
- Created a test bench and simulated the circuit using Xilinx Foundation tools to verify functionality.
- Mapped the 4-bit ALU onto the NEXYS 3 FPGA board and connected its output to the 7-segment display via a decoder.

Arduino-Based Pinball Machine   September 2024 – November 2024
University of Guelph - Engineers for a Sustainable World, Guelph, ON
- Collaborated with a team of five members to create a pinball machine, automating aluminum pop tab collection.
- Developed a circuit incorporating six sensors, a motor, a display, two speakers, 30 LEDs, and an ESP32 WIFI module to track scores and transmit results to a dedicated website.
- Programmed C++ based Arduino circuit in order to control LEDs, play sound effects, and display scores based on user's interaction with the system, allowing collection of over 1000 grams of aluminum.

JavaFX Two-Player Game Team Project   January 2024 – April 2024
University of Guelph - Object Oriented Programming Course, Guelph ON
- Led a team of four students to create a two-player game using JavaFX, ensuring a high level of organization and timely completion of all project phases.
- Implemented interactive controls, a user interface, and a file reading/writing feature.
- Enhanced the project by incorporating feedback from teaching assistants, exceeding project requirements to earn a final grade of 100% for the project.

Work Experience

Robotics and STEM Program Teacher   June 2024 - September 2024
Dr X Academy, Richmond Hill, ON
- Designed weekly lesson plans and interactive exercises to educate groups of 2 to 10 students in an effective and engaging way.
- Delivered instruction on Unity 3D Game Development, Blender, Tinkercad, and LEGO Mindstorms.
- Successfully prepared younger students for participation in the LEGO League Competition by building foundational programming, design, and mathematical concepts.

Residence Ambassador   January 2024 - April 2024
University of Guelph Housing Services, Guelph, ON
- Showcased university residences, engaged with over 20 campus tour groups of 5–20 people.
- Provided detailed explanations of residence policies, housing options, and the application process.
- Answered questions about the university and provided helpful resources to over 50 visitors.

Tim Hortons Team Member   September 2022 - September 2023
Tim Hortons, Richmond Hill, ON
- Processed over 90 customer transactions accurately and efficiently using a POS system on a daily basis.
- Resolved customer inquiries and concerns through strong communication and problem-solving skills.
- Collaborated with a 10-person team to ensure guest satisfaction and efficient service.

Engineering Leadership Experience

Guelph Engineering Society, Second Year Representative (EngSoc)   September 2024 - Present
University of Guelph Engineering Society, Guelph ON
- Elected to serve as the 2nd Year Representative by the University of Guelph's second-year engineering students.
- Attend weekly meetings, discuss agendas, and vote on proposed motions and budget discussions, to improve the academic experience of over 300 engineering students.
- Collected and organized dates of test and quiz schedules and other information in Microsoft Excel, increased the turnout by over 30% for events hosted by EngSoc.

Guelph Robotics Team, General Member of Software Division (UGRT)   September 2024 - Present
University of Guelph Robotics Team, Guelph ON
- Involved in preparation for the Canadian International Rover Challenge within an 8-person team, focusing on data acquisition and organization from sensor inputs using ROS2, Linux Virtual Machines, Webots simulation, and RealSense technology.
- Enhanced team communication and project organization using GitHub, ensuring alignment with division goals.
- Attend weekly meetings and coordinate closely with teammates, managing tasks independently and tracking project progress through GitHub to ensure meaningful progress continues to be made each week.

Conferences and Certifications

SOLIDWORKS CAD Design Associate (CSWA) Certificate   March 2025
WACE Global Challenge Sustainable Impact Project Certificate of Completion   February 2025
Care About AI: Introducing Artificial Intelligence Certificate of Completion   December 2024
Guelph Engineering Leadership Program Certificate of Accomplishment.   June 2024
Ontario Secondary School Business Certificate   June 2023

References available upon request.