STEVE ROGERS

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Highlights of Qualifications

- Current Electrical & Computer Engineering graduate student, eligible for a 4, 8 or 12 month Co-op starting in May 2026
- 4 years of experience in Computer Engineering with well-developed skills in microelectronics, VLSI, RTL Design and pre-silicon verification
- Demonstrated teamwork, communication and critical thinking skills in industry internships and academic project work

Education

Master of Engineering (MEng), Electrical and Computer Engineering (Co-op) **Sept 2025 – Apr 2027**
McMaster University, Hamilton ON

- Relevant coursework: Embedded Systems, System-on-a-Chip Design and Test, Computer Architecture

Bachelor of Applied Science (BASc), Computer Engineering (Co-op) **Sept 2020 - Apr 2025**
University of Toronto, Toronto ON

- Relevant coursework: Digital Systems Design, Digital Electronics, VLSI Technology

Skills

Software Languages: Verilog/SystemVerilog, Python, C/C++, Bash, Perl, TCL, Assembly
Software Tools: Git/GitHub, Synopsys VCS, JasperGold, DFT Compiler, Icarus Verilog, Siemens EDA, Jira
Other Skills: Xilinx FPGA development boards, Oscilloscopes, Multimeter, Soldering

Relevant Experience

System-on-Chip Design Intern **May – Aug 2025**
AMD, Markham ON

- Integrated IP blocks and RTL design to develop SoC architecture using Verilog
- Developed UVM-based testbenches for functional verification, achieving >95% code coverage
- Participated in post-silicon bring-up, performing signal tracing and debugging using oscilloscopes, logic analyzers, and JTAG interfaces
- Collaborated with cross-functional teams to validate SoC performance and power metrics, demonstrating communication, critical thinking and teamwork skills in professional environments

Hardware Validation Intern **May – Aug 2024**
NVIDIA, Toronto ON

- Supported validation of next-generation NVIDIA GPUs and SoCs by executing structured test plans across multiple hardware configurations
- Performed hands-on bring-up and debugging of development boards using lab tools such as oscilloscopes, multimeters, and logic analyzers
- Automated validation workflows using Python and Bash, improving test efficiency and reducing manual errors
- Collaborated with silicon, board, and firmware teams to isolate hardware issues and propose design or firmware-level fixes, highlighting teamwork and communication skills

Project Experience

Custom RISC-V Processor with Peripheral Interface **Sept 2024 – Mar 2025**

University of Toronto, Undergraduate Capstone Project

- Designed and implemented a 32-bit RISC-V processor core in Verilog, supporting a 5-stage pipelined architecture with hazard detection and forwarding logic
- Integrated custom peripherals (UART, GPIO, Timer) via memory-mapped I/O, and developed a lightweight bus protocol for communication
- Verified functionality using ModelSim and synthesized the design on a Xilinx Artix-7 FPGA using Vivado, achieving stable operation at 50 MHz
- Wrote and executed bare-metal C programs to validate instruction execution, I/O control, and interrupt handling
- Managed a team of 4 electrical and computer engineering students on long-term development of this project, demonstrating project management, organizational and communication skills

Hardware Image Decompressor **Nov – Dec 2023**

University of Toronto, Digital System Design Course

- Implemented an image decompressor using an Altera DE2 board and VGA interface
- Programmed a system of finite state machines in Verilog to perform image decompression on a compressed 320x240 image
- Increased common case efficiency interpolation and colour space conversion by achieving 93% utilization of onboard multipliers
- Collaborated with 2 other peers to develop hardware components, highlighting project management, teamwork and communication skills

Other Experience

Team Member **May – Aug 2022**

Burger King, Hamilton ON

- Managed high volumes of customer orders during peak hours, demonstrating time management, attention to detail, and communication skills
- Worked closely with coworkers to maintain flow and efficiency, highlighting teamwork ability in fast-paced settings
- Resolved customer complaints and difficult situations, showing professionalism and problem-solving skills in real-time situations