Ruth Berkow

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Education

BACHELOR OF ENGINEERING | MAY 2017 | MCGILL UNIVERSITY

- Major: Electrical Engineering
- Minor: Software Engineering
- GPA: 3.83/4.00

Skills & Abilities

TECHNICAL SKILLS

- Programming languages: C, Python, Java, Bash, VHDL & Verilog, MATLAB
- Tools: git, Make, vim, debugging tools (gdb, pdb, ldd, readelf)

LANGUAGES

- Fluent in English and French
- Basic proficiency in Hebrew

Experience

SOFTWARE ENGINEER | CISCO SYSTEMS | JULY 2017 – PRESENT

- OS-level development of Cisco's IOS-XE switches/routers across various chipsets (ARM, x86, MIPS)
- Configured OpenEmbedded Linux kernel to reduce memory use for low-memory platforms (C)
- Improved IOS-XE boot times by up to 15% by optimizing the GNU linker & loader (C, Python, Bash)
- Developed build and image packaging system for very large codebase (Python, Perl, C, Make)

DIGITAL DESIGN ENGINEER | MACDONALD, DETTWILER & ASSOCIATES | MAY – SEPTEMBER 2016

- Built test suite to validate FPGA design for satellite use (Python)
- Designed set of tools on VxWorks to facilitate bit-accurate testing in the lab (C, Bash)
- Implemented library of testing functions to be used by team of 90+ engineers (Python)

EMBEDDED SYSTEMS SECURITY RESEARCHER | MCGILL UNIVERSITY | MAY 2015 – APRIL 2016

- Implemented experimental protocols for in-vehicle communication (Python and Verilog)
- Designed and built a real-time testing platform using FPGAs and microcontrollers
- Developed authentication scheme enhancement for SocketCAN driver (C)
- Researched various CAN-based security protocols