Positions Available in FPGA Architecture, Software, and Machine Learning

Locations: San Jose, California, or Kitchener, Ontario.

Why Microsemi?
- We are a leading manufacturer of Field-Programmable Gate Arrays (FPGAs), a widely-used type of programmable logic chip. Our FPGAs are especially low-power, reliable and secure.
- Microsemi is a major supplier of semiconductors for data centers and other growing markets.
- We are a leader in the adoption of the Risc V instruction set architecture.
- As a member of the Advanced Development team, you will be positioned to learn and make visible contributions in any of a variety of technical areas (see list below).

Responsibilities:
- Use your software and analytical skills to help conceive or evaluate specific aspects of new FPGA or processor architectures in leading-edge CMOS technology, as part of a collaborative team.
- Investigate the suitability of various architectures for neural network inference, digital signal processing, and compute acceleration.
- Prepare to serve in a project or technical leadership role.

Required Qualifications:
- MS or PhD (preferred) in CS, Computer Engineering, or EE.
- Minimum of three years related practical experience, either in industry or an academic research team.
- Ability to implement algorithms in C++ or Python.
- Some familiarity with basic computer science algorithms (e.g., shortest path)
- Some familiarity with digital logic design (Verilog or VHDL, and gate level schematics)
- Ability to research technical problems, learn, and drive issues to closure.
- Excellent communication skills orally (e.g. to present research findings) and in writing (e.g. specifications).

Additional Qualifications: The ideal candidate will have knowledge of one (but not necessarily more than one) of the following areas. We can adjust the responsibilities to focus on your area(s) of strength and interests.
- FPGA routing architecture and circuit design
- Hardware architectures for neural network inference
- TensorFlow or other machine learning toolkits
- Implementation of DSP functions (such as FFT) in FPGAs or parallel processors
- Partitioning, placement, routing, clustering, or logic synthesis algorithms
- Processor architecture
- Optimizing compilers

To apply: [https://careers.microchip.com](https://careers.microchip.com). Enter keyword 7743 (San Jose) or 7529 (Kitchener).