

InferX SoC and Logic Design Engineer

RESPONSIBILITIES

Be part of our exciting team developing responsible for designing our InferX SoCs and the RTL that are used to control the execution of neural network layers (we call this SoftLogic).

The candidate must be able to work in every stage of silicon development: specification, coding, timing closure, DV and PD support, post-silicon validation, prototyping for:

- SoC design of multiple blocks communicating over Network-on-chip (NOC)
- SoC integration of NMAX engine, DDR controller, PCIe controller, and SoC management over NOC
- DMA controller for high-performance data transfer to/from host computer (through PCIe) and DDR
- SoftLogic RTL for the Reconfigurable Tensor Processor to implement neural network operators

EXPERIENCE AND SKILL REQUIRED

BSEE/MSEE with 3 years of industry experience designing commercial SoCs in production

Develop microarchitectures and identify/integrate IP to meet product requirements

Work with internal and 3rd party IP suppliers

Code/synthesize/lint RTL and complete static timing analysis

Work effectively with verification team to deliver high quality RTL

Must have hands-on experience and knowledge of SoC designs and network-on-chip designs

Must have hands-on experience designing with DMA controllers

Must be passionate about doing this job: wanting to change the world and work hard doing it

Must be entrepreneurial in spirit and an innovative problem solver

Must be willing to do what it takes to get the job done

Preferred or willing to learn:

- Knowledge of computer architecture, especially in systolic arrays
- Familiarity with memory architecture in SoC
- Experience with FPGA design and emulation
- Experience with FPGA and ASIC EDA tools
- Experience interfacing with back-end teams (silicon engineering) as well as Sales & Applications
- Experience with RTL coding in Verilog or SystemVerilog
- Experience scripting in Python or Perl
- Familiarity with C or C++ coding

MUST live in Silicon Valley and have a US citizenship or permanent residency (“green card”), or holding a current H1-B visa