NMAX SoC Design Engineer & Micro-architect

RESPONSIBILITIES

Be part of our exciting new team for the NMAX SoC: a highly efficient Neural Network inference accelerator.

The candidate must be able to work in every aspect of SoC microarchitecture and design: specification, IP selection, interface definition, RTL coding, as well as DV and PD support, post-silicon validation, prototyping for:

- SoC microarchitecture, including network-on-chip, DMA, and interface to host computer and DDR

- 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

EXPERIENCE AND SKILL REQUIRED

BSEE/MSEE with 5 years of industry experience architecting and designing commercial SoCs in production

Define complete SoC microarchitecture, as well as microarchitecture for individual blocks within the SoC

Identify/select/integrate IP to meet product requirements

Define and develop interface to the host computer via PCIe

Work with internal and 3rd party IP suppliers

Code/synthesize/lint RTL, and 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

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