

Company :
Company Name :
Nature Of Business :
Designation :
Tentative Job Location : Chennai

KLA Tencor Software India Pvt Ltd
KLA Tencor Software India Pvt Ltd
Product Engineering
CUDA Development Engineer

CUDA Development Engineering – AI/ML Group
KLA, Chennai, India

KLA Overview:

Calling the adventurers ready to join a company that's pushing the limits of nanotechnology to keep the digital revolution rolling. At KLA, we're making technology advancements that are bigger—and tinier—than the world has ever seen.

Who are we? We research, develop, and manufacture the world's most advanced inspection and measurement equipment for the semiconductor and nanoelectronics industries. We enable the digital age by pushing the boundaries of technology, creating tools capable of finding defects smaller than a wavelength of visible light. We create smarter processes so that technology leaders can manufacture high-performance chips—the kind in that phone in your pocket, the tablet on your desk and nearly every electronic device you own—faster and better. We're passionate about creating solutions that drive progress and help people do what wouldn't be possible without us. The future is calling. Will you answer?

Key Responsibilities:

- As part of KLA algorithms team, the job entails understanding core algorithms that have to expressed in various parallel computing constructs particularly HPC accelerators such as GPUs.
- The first step in optimizing will be to theoretically model break-down of our AI algorithms and model it in terms of available bandwidth, computational FLOPS etc. The implementation steps will include CUDA level programming along with performance tuning to ensure that we can come close to achieving the theoretical model.
- The developer will be exposed to a variety of image processing, signal processing and deep learning loads that have to be optimized. A complimentary stage of optimization includes exploring existing libraries and programming in higher level constructs such C++ Parallel programming.
- While the initial focus of the team will be on NVIDIA GPUs, the R&D team will also be looking at other GPU accelerators from other vendors as well as FPGA acceleration. You will collaborate with peer researchers in parallel computing areas and with algorithm teams in product groups.

Description :

Minimum Qualifications

- New college graduates in any of the following degree: Ph.D., Dual Degree, MS, M.Tech or B.Tech. (Candidates from EE, CS and Mathematics background would be preferred)
- A researcher who has a strong foundation in computer architecture, and in particular with a focus on high performance parallel processing at the device level (GPUs or CPUs/SIMD or FPGAs).
- The researcher should have a strong mental model of computational loads and mapping different algorithms to parallel architectures.
- Proficient in programming skills in C/Modern C++ and Python.
- Experience in analyzing and tuning applications using profiling tools such as NSIGHT or VTUNES.
- Good understanding and exposure to the Linux operating system at the user level.
- Exposure to multiprocessor and multithreading concepts
- Some familiarity with GPU programming such as CUDA, OpenCL or SYCL.

The position also requires a person with significant communication, initiative and the ability to navigate from relatively high-level requirements to low level computational models.

Program	AE	BSBE	CE	CHE	CSE	EE	ES	ME	MSE	PHY	CHM	MTH	ECO	DES	IME	CGS	HSS	EEM	MSP	NET	PSE	Stats
BT	No	No	No	No	Yes	Yes	--	Yes	No	--	--	--	--	--	--	--	--	--	--	--	--	--
BS	--	--	--	--	--	--	No	--	--	No	No	Yes	No	--	--	--	--	--	--	--	--	--
MT	No	No	No	No	Yes	Yes	No	Yes	No	--	--	--	--	--	No	--	--	No	No	No	No	--
DoubleMajor	No	No	No	No	Yes	Yes	--	Yes	No	No	No	Yes	No	--	--	--	--	--	--	--	--	--
dual	No	No	No	No	Yes	Yes	No	Yes	No	No	No	Yes	No	--	--	--	--	--	--	--	--	--
dualB	No	No	No	No	Yes	Yes	--	Yes	No	No	No	Yes	No	--	No	--	--	No	--	No	No	--
dualC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	Yes	No	No	No	--	--	--	--	--	--	--
Mdes	--	--	--	--	--	--	--	--	--	--	--	--	--	No	--	--	--	--	--	--	--	--
MBA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	No	--	--	--	--	--	--	--
Phd	No	No	No	No	Yes	Yes	No	Yes	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No
MSc	--	--	--	--	--	--	--	--	--	No	No	Yes	--	--	--	--	--	--	--	--	--	No
MSR	No	No	No	No	Yes	Yes	--	Yes	No	--	--	--	--	--	--	No	--	--	--	--	No	--

Bachelors: INR 2124542 + Hiring Bonus INR 200000

Cost to Company : Masters/Dual: INR 2341728 + Hiring Bonus INR 200000

PhD: INR 3075284 + Hiring Bonus INR 200000

Heads	Btech	Masters/DD	PhD
Basic	1700000	1800000	2200000
Bonus	170000	180000	330000
LTI	122916	218833	368583

Other Benefits	131626	142895	176701
Total CTC	2124542	2341728	3075284
One time Hiring Bonus	200000	200000	200000

**Package
Details :**

Total LTI:

Bachelors: INR 368750 (Year 1 is included in CTC, Remaining 2 installments will be paid in year 2 and 3)

Masters/Dual: INR 656500 (Year 1 is included in CTC, Remaining 2 installments will be paid in year 2 and 3)

PhD: INR 1105750 (Year 1 is included in CTC, Remaining 2 installments will be paid in year 2 and 3)

Bond :	False
CPI CutOff :	0.0
Medical Requirments :	No
Resume Shortlist :	False
Aptitude Test:	False
Group Discussion:	False
Technical Test:	True
Technical Test Duration:	60 Mins
Technical Interview:	True
Technical Interview Duration:	60 Mins
Number of Techincal Interview Rounds:	2
HR Interview:	True
HR Interview Duration:	30 Mins
Additional Information:	