Centre for High Performance Computing 2024 National Conference



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NVIDIA Accelerated Computing (NVIDIA)

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NVIDIA's Accelerated Computing Platform is designed to accelerate various workloads, including AI, HPC, Professional Visualisation & Gaming. The platform provides faster performance, increased productivity, improved accuracy, and cost savings for organizations across industries.

NVIDIA's Accelerated Computing Platform is designed to accelerate various workloads, including:

- Artificial Intelligence (AI): NVIDIA's GPUs and Tensor Cores accelerate AI workloads, such as deep learning, natural language processing and computer vision.
- High Performance Computing (HPC): NVIDIA's GPUs and networking technologies accelerate HPC workloads, such as scientific simulations, data analytics and visualization
- Professional Visualization: NVIDIA's GPUs and Quadro professional visualisation workloads, such as 3D modelling, engineering, and video production
- Gaming: NVIDIA'S GeForce GPUs accelerate gaming workloads, providing fast performance, low latency, and high-quality graphics

NVIDIA's Accelerated Computing Platform:

- NVIDIA GPU Architecture: NVIDIA's GPU Architecture is designed to accelerate compute -intensive workloads
- $\hbox{-} CUDA: CUDA is NVIDIA's parallel computing platform and programming model and allows developers to harness the power of NVIDIA GPU'S \\$
- NVIDIA Networking: NVIDIA's networking technologies such as NVIDIA Mellanox, provide highspeed networking solutions for accelerated computing workloads
- NVIDIA Software: NVIDIA provides a range of software development kits (SDKs) and tools to support
 accelerated computing workloads.

Numerous Industries benefit from NVIDIA Accelerated Computing, just to name a few: Healthcare (acceleration of medical imaging, genomics, and drug discovery workloads) Finance (acceleration of financial modelling, rick analysis and trading workloads) Scientific Research: (acceleration of scientific simulations, data analytics and visualization workloads) Gaming and Professional Visualization: (faster performance and high-quality graphics)

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Workshop Duration

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Presenter: Ms DUKE, Belinda Leigh (Partner) **Session Classification:** HPC Technology