# HP Z WORKSTATIONS FOR MACHINE LEARNING

Discover the power of HP Z Workstations to accelerate your development and get your solutions to market. For deployments on the edge, HP Z Workstations are designed for 24/7 duty[1] with scalability for the most demanding inferencing delivering high bandwidth and low latency.

When developing a Machine Learning solution you want a platform that can optimize your time-to-solution. HP Z Workstations have the performance and capacity to enable large training sets, fast results, and iterations with high quality. Get to market faster, increase your solution confidence, or both. And for edge deployments, HP Z Workstations are designed to a higher standard than ordinary PCs to support continuous operation in commercial environments, with top performance for demanding inferencing like video analytics.

IDEA

DESIGN & TRAIN

TEST & EVALUATE
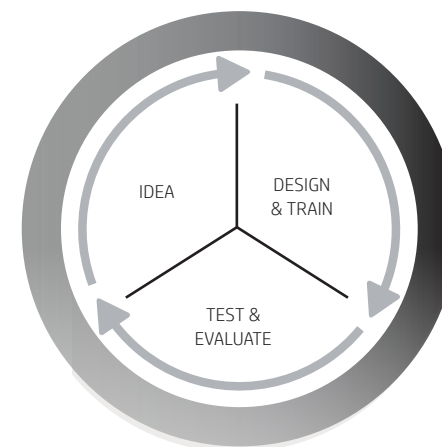
CHOOSING A CONFIGURATION

DEVELOPMENT WORKSTATION

Development is heavy lifting! Big GPUs, and often several of them, are essential to cranking through training of your model with lots of data. You will also need multiple CPU cores, large (and fast) storage, and fast I/O to condition your dataset and feed data to the GPU.

How much is enough? If you have modest training set sizes of <100 GB then try our HP Z4 development configuration. For large sets of >100 GB or more we recommend the HP Z8, our ultimate development platform, supporting up to 3 high-end GPUs and all the other resources you'll need to match them.

HP ML DEVELOPERS PORTAL

To help your Machine Learning model development, HP has created the HP ML Developers Portal to provide the tools and documentation needed to install a high-performance, validated Machine Learning environment on your HP Z Workstation. Visit https://hp.io/ML for information and frequent updates.

DEPLOYMENT WORKSTATION

Deploy on the network's edge when you have big data and need fast response for tasks like video analytics in a retail or factory environment. You'll need lots of cores and a good GPU.

For manageability, Windows or Linux® work equally as well. HP Workstations provide all of this and offer 24/7 duty cycles[1] and industrial strength performance so only one may be needed to service multiple devices.

HP RECOMMENDED CONFIGURATIONS FOR MACHINE LEARNING

IDEAL FOR EDGE DEPLOYMENTS	IDEAL FOR SMALLER DEVELOPMENT LOADS	HP'S DEVELOPMENT PLATFORM FOR LARGE WORKLOADS
HP Z4 Workstation	**HP Z4 Workstation**	**HP Z8 Workstation**
• Intel® Xeon® W-2133 3.6 GHz 6 core[2]	• Intel® Xeon® W-2155 3.3 GHz 10 core[2]	• 2x Intel® Xeon® 6136 3.0 GHz 12 core each, 24 cores total[2]
• Microsoft Windows 10[4]	• Linux® Ubuntu 16.04[5]	• Linux® Ubuntu 16.04[5]
• 16 GB DDR4-2666 ECC SDRAM	• 64 GB DDR4-2666 ECC SDRAM	• 192 GB DDR4-2666 ECC SDRAM
• OS Drive: 256 GB SATA 6 GB/s SSD[3]	• OS Drive: 256 GB SATA 6 GB/s SSD	• OS Drive: 256 GB SATA 6 GB/s SSD
• Data Drive: 256 GB PCIe SSD[3]	• Data Drive 1: 256 GB PCIe SSD[3]	• Data Drive 1: HP Z Turbo Drive M.2 512 GB SSD[3]
• NVIDIA® Quadro® P400	• Data Drive 2: 2 TB 7200 rpm HDD[3]	• Data Drive 2: HP Z Turbo Drive M.2 512 GB 2nd SSD[3]
	• NVIDIA® Quadro® P5000	• Data Drive 3: 4 TB 7200 rpm HDD
		• 3x NVIDIA® Quadro® GV100

[1] 24/7 use will not void HP Warranty.

[2] Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel®'s numbering, branding and/or naming is not a measurement of higher performance.

[3] For hard drives and solid state drives, 1 GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB of system disk is reserved for system recovery software.

[4] Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com

[5] Linux® Ubuntu is not supplied by HP.

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