Lenovo ThinkStation PGX for Higher Education

Build, fine-tune, and run large AI models with NVIDIA GB10 Grace Blackwell Superchip

Accelerated by

NVIDIA

Desktop AI accelerator for learning, research & innovation

Lenovo ThinkStation PGX brings personal AI supercomputing to the desktop, empowering faculty, researchers, and students to explore, accelerate learning, and drive discovery without compromise.

Challenges slowing your AI progress

1	**Shared Resource Limits**	Researchers and students often wait in long job queues on oversubscribed campus clusters, slowing experimentation and coursework. Concurrent use also raises the chance of accidental file or environment changes when multiple users share the same system.
2	**Local Performance Gaps**	Many academic teams cannot run large-parameter or high-compute AI models locally, forcing them to rely on slower Wi-Fi connections that hinder real-time testing, iteration, and classroom demonstrations.
3	**Data Privacy Risks**	Sensitive research data, student information, and protected academic content often cannot leave campus. Public cloud environments introduce privacy issues, FERPA concerns, and governance challenges for many disciplines.
4	**Hardware Cost Barriers**	Traditional desktop systems lack the CPU/GPU memory needed for modern AI workloads, and upgrading existing lab hardware is expensive and inefficient. Memory limits and legacy hardware slow model development, tuning, and research output.

Segments:

- AI research labs
- Engineering & STEM
- Institutes
- Data science
- Graduate & PhD
- Teaching & instructional labs

Spark your research - learn, teach, and innovate
Your own personal AI supercomputer

AI performance

Blackwell GPU architecture accelerates AI performance

Unified memory

128 GB shared CPU-GPU memory for massive models

Scalability

ConnectX-7 200 GBps connection for multi-node expansion

AI-ready stack

Validated for NVIDIA AI software stack & ARM core architecture and DGX OS*

*DGX OS Based on Ubuntu Pro 24.0

Powering higher education workflows

Research prototyping: Rapid experimentation on large models without consuming shared cluster resources.

Model optimization: Quantization, pruning, and hyperparameter tuning before scaling for student or faculty projects.

Curriculum integration: Hands-on AI/ML teaching with real-scale model capabilities.

Parallel student projects: Independent compute for coding labs, capstone projects, and team assignments.

Fine-tuning & inference: On-demand compute for sensitive data and grant-funded projects.

Who benefits from the Lenovo ThinkStation PGX

AI Researchers & Lab Leads

Accelerate experimentation, run large models locally, and eliminate cluster queue delays.

Faculty & Instructors

Enable hands-on AI/ML teaching with consistent, reproducible environments.

Graduate & PhD Students

Conduct advanced and focused research, iterate faster, and handle advanced workloads.

Undergraduate Learners

Gain practical experience with real AI models, coding, and data science workflows.

Academic IT & Infrastructure Teams

Reduce pressure on clusters, simplify management, and maintain on-premise data control.

Features & specifications

NVIDIA GB10 Grace Blackwell Superchip
CUDA cores | Tensor cores | RT cores

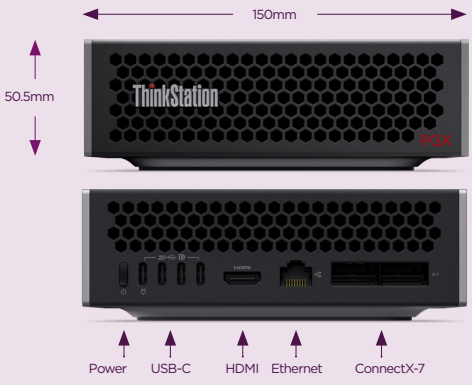
up to **1 PFLOP**
273GB/s Bandwidth

128GB
Coherent unified system memory

1TB or **4TB**
NVMe M.2
(self-encrypting)

4x USB Type-C
(20 Gb/s)
HDMI 2.1a

RJ-45 10 GbE
Wi-Fi 7
Bluetooth 5.4 LE



What makes ThinkStation PGX Different

- Server-grade AI power in a desktop
- Grace Blackwell architecture optimized for AI
- Enterprise-class reliability
- Scalable from desk to cluster

Discover more about Lenovo ThinkStation PGX and how it powers smarter higher education innovation **Learn more**

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