GSI Technology Teams Up with UC Riverside to Supercharge AI and High Performance Computing with Gemini APU

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SUNNYVALE, Calif., Nov. 29, 2023 (GLOBE NEWSWIRE) -- GSI Technology, Inc. (Nasdaq: GSIT), developer of the Gemini$^®$ Associative Processing Unit (APU) for AI and high-performance computing (HPC) and a leading provider of high-performance memory solutions for the networking, telecommunications, and military markets, today announced a collaboration with Professor Elaheh Sadredini of the Computer Science Department at the University of California, Riverside. Utilizing the Gemini APU, Professor Sadredini and her team of student researchers at UC Riverside are focusing on optimizing not only fundamental operations like linear algebra and Regular Expression matching but also a wide range of applications including bioinformatics, machine learning, data mining, cryptography, and more.

The Gemini APU's compute-in-memory design offers an optimal remedy for the "AI bottleneck" dataflow issue, significantly increasing both performance and memory capacity for a host of cutting-edge applications. The architecture inherently boasts substantial memory bandwidth making it ideally poised to elevate performance and memory capacity for AI and High Performance Computing.

"The technologies we all use today such as machine learning, AI, and even databases, all started out as student projects and research papers before industry took notice," said Lee-Lean Shu, CEO of GSI Technology. "It's essential for GSI to foster and support academics like Professor Sadredini who are doing fundamental research in important application areas and who want to experiment with our new compute paradigm to achieve breakthrough results."

Professor Sadredini's work is at the intersection of memory and compute with a focus on machine learning, data mining, and hardware security. In Professor Sadredini, GSI Technology now has yet another amazing researcher at a top-tier university who is doing important work with the Gemini APU.

"I'm extremely excited to collaborate with GSI Technology as we work to bridge the gap between theoretical and practical application and innovations," said Sadredini. "This partnership embodies the best of academia and industry expertise, and I am excited to be at the forefront of this effort."

GSI Technology is dedicated to advancing its groundbreaking APU technology through partnerships with world-leading research institutions. In addition to UC Riverside, GSI is actively collaborating with academics and researchers from other top universities including Massachusetts Institute of Technology, University of Southern California, Brigham Young University, University of Pittsburgh, and the University of Arizona.

To learn more about GSI's Gemini APU visit https://www.gsitechnology.com/compute

ABOUT GSI TECHNOLOGY

Founded in 1995, GSI Technology, Inc. is a leading provider of semiconductor memory solutions. The Company recently launched radiation-hardened memory products for extreme environments in space and the Gemini$^®$ Associative Processing Unit (APU), a memory-centric design that delivers significant performance advantages for diverse AI applications. The Gemini APU architecture removes the I/O bottleneck between the processors and memory arrays by performing massive parallel searches directly in the memory array where data is stored. The novel architecture delivers performance-over-power ratio improvements compared to CPU, GPU, and DRAM for applications like image detection, speech recognition, e-commerce recommendation systems, and more. Gemini is an ideal solution for edge applications with a scalable format, small footprint, and low power consumption where rapid, accurate responses are critical. For more information, please visit www.gsitechnology.com.

Contacts:

Investor Relations:

Hayden IR
Kim Rogers
385-831-7337
kim@haydenir.com

Media Relations:

Finn Partners for GSI Technology
Ricca Silverio
415-348-2724
gsi@finnpartners.com

Company:

GSI Technology, Inc.
Douglas M. Schirle
Chief Financial Officer
408-331-9802

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