

CONNECTION
COLLABORATION
COMMUNITY

Educating & Connecting the HPC and AI Community

ANNUAL TECHNOLOGY EVENT

April 24, 2025





Welcome & Safety Moment

Shell Woodcreek

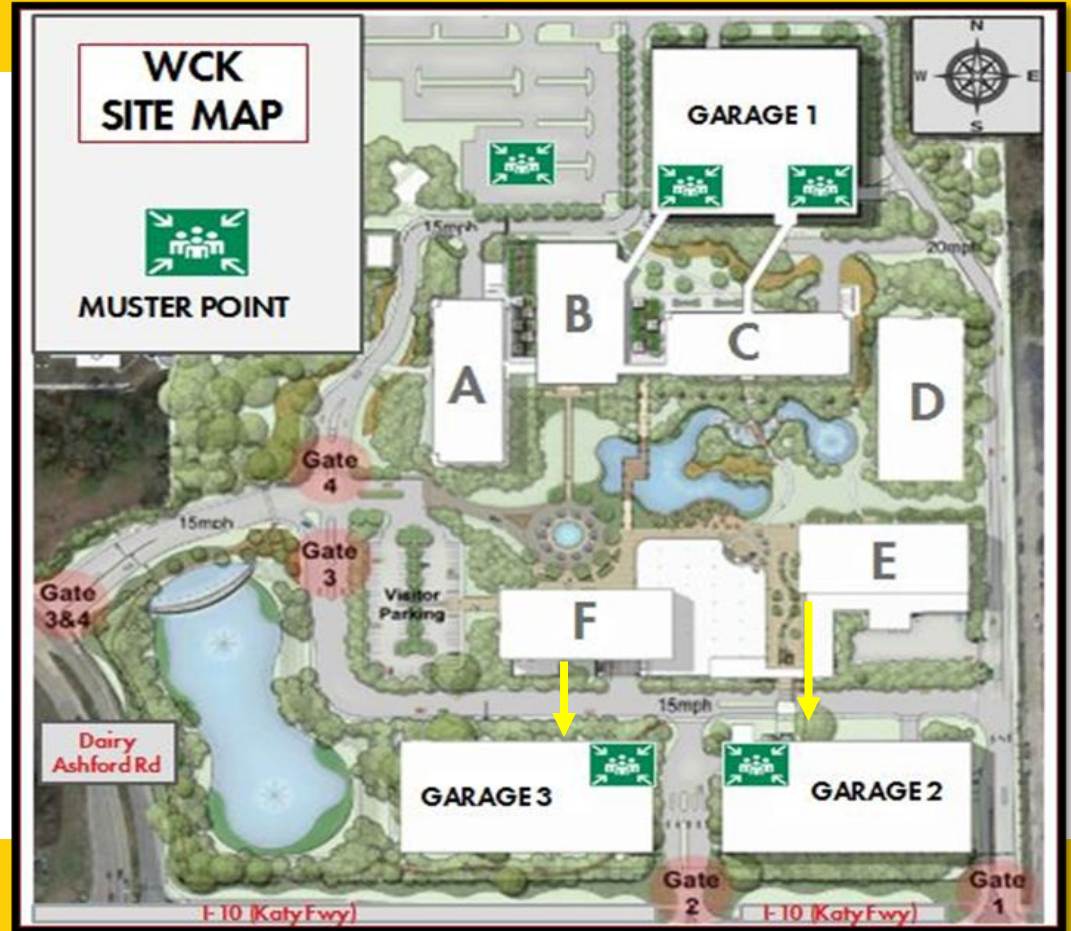
April 24, 2025

HPC-AI Society Conference

B109



- There are no planned drills or alarms today.
- In the event of an alarm muster at the nearest exit and await further instructions.
- If an evacuation of B-Building is ordered, we will exit to building and move into the ground level of Parking Garage 1 or the surface lot North of Building B.
- In the event of severe weather B101 and B109 are interior rooms and relocation will not be necessary.
- In the event of an Emergency, call 911 and then 281-544-2000 (WCK Security Control)





EMERGENCY/EVACUATION PLAN
WCK-BLDG B



- AED** Automatic External Defibrillator
FEC Fire Extinguisher Cabinet
FPS Fire Pull Station
 Severe Weather Zone

Emergency Contact Information:

Security (Building F 1st Floor Lobby) 281-544-2000
Shell Medical (Building E 2nd Floor) - 832-337-3390

In case of Alarm Only: Muster in place and await instructions.

In case of immediate threat: Evacuate to a safe area, call security and 9-1-1.

In case of Severe Weather follow PA instructions.

Life Threatening Medical Emergencies

Dial: 911

THEN: Call WCK Security at +1 281-544-2000

AND: Notify your supervisor

Non-Life Threatening/First Aid

Call WCK Security at +1 281-544-2000

AND: Notify your supervisor

Mission

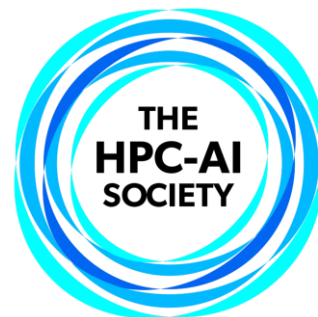
Educating & Connecting HPC and AI Users to Technology

- The HPC-AI Society is a charitable, non-profit 501 (c)(3) organization
- Educates and connects the HPC and AI user community, industry, government, and academia with the latest technology and best practices
- Focus areas include: Simulation, AI/ML, Data Science, Graph Analytics, Cloud Computing, Quantum Computing, Cyber Security, and Visualization
- HPC and AI are horizontal technologies, with applications in Energy, Life Sciences, Engineering, Manufacturing, Weather & Climate, Financial Services, Government, and Academia



Member Benefits

Membership in the HPC-AI Society is open to all HPC and AI professionals serving all industries worldwide. If you are interested in participating in the Society's efforts to provide a vendor-neutral, user-centric organization that truly serves the needs of the HPC and AI community, please join us!



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Individuals can join the Society as Professional Members for an annual fee of just \$60.00

- No cost to attend all HPC-AI Society events
- View streamed events if not able to attend in person
- Receive access to:
 - Presentation materials (when approved by the presenting organization)
 - Streamed event recordings
 - Archived presentations and technical publications



hpc-ai-society.org

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Follow us: linkedin.com/company/the-society-of-hpc-professionals

Member Benefits

Students can join the Society as Student Members **for free!**

- No charge to attend annual technology event
- Half price to attend Lunch & Learn events
- Receive access to:
 - Presentation materials (when approved by the presenting organization)
 - Streamed event recordings
 - Archived presentations and technical publications
- A valid .edu email address is required



Note: membership is for a full 12 months regardless of when you join (based on join date, not calendar date)

Coming soon: new job board for members and sponsors



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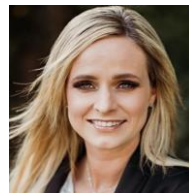
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This Year's Speakers



Doug Norton
HPC-AI Society



Addison Snell
Intersect360 Research



Andreea Munteanu
Canonical



Srikanth Gubbala
Applied Materials Inc.



Nefeli Moridis, Ph.D.
NVIDIA



Shahin Khan
CXO, Board Member, Analyst



Shardool Pathak
Software Engineer



whurley
Strangeworks



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Agenda

8:00am	Venue Opens	Registration, breakfast in exhibit area, networking
9:00am	Welcome Doug Norton, President, HPC-AI Society	Welcome and overview of the day, including important facility information and an exciting Society announcement.
9:15am	Morning Keynote Address: Five Big Questions for HPC and AI in 2025 Addison Snell, CEO, Intersect360 Research	Addison will provide an overview of the state of the HPC-AI market, focusing on major questions facing an industry at a tipping point. Insights will be based on the latest market research fueled by the HPC-AI Leadership Organization (HALO), including the current state of HPC-AI budgets and long-term outlook for the HPC-AI market.
10:00am	Replacing Legacy ML Tooling with Secure Open Source MLOps Platforms in Financial Sectors: Ensuring Security, Stability and Automation Andreea Munteanu, AI Software Alliance Manager, Canonical	Financial services organizations have already started their AI journey, with a number of projects running in production. Infrastructure that is used to develop and deploy such initiatives is often a series of tools, put together without deep integration. They influence the maintainability of the infrastructure, challenging developers to spend more time on tooling than ML projects. This talk will explore the key considerations for replacing legacy ML tooling with open source MLOps platform, keeping in mind the security and compliance requirements of the industry. It will present automation opportunities to ensure scalability, stability, and portability.
10:45	Break and Networking	



Agenda (continued)

11:00am	Driving Innovation: Insights on HPC/AI/QC/Cloud Architectures to Support the Future of Science & Engineering Srikanth Gubbala, Head of HPC Infrastructure (Global), Applied Materials	This talk explores how the integration of HPC, AI, cloud computing, and Quantum Computing is revolutionizing the future of science and engineering, with a special focus on the semiconductor industry. Cloud computing now plays a pivotal role in extending HPC capabilities, enabling elastic scaling, accelerating simulation workloads, and fostering global collaboration in silicon design and advanced manufacturing. The session will showcase how next-generation cloud architectures, combined with AI-driven automation and quantum advancements, are driving faster innovation cycles, enhancing R&D productivity, and opening new frontiers in computational science and engineering.
11:45am	Lunch and Networking	
1:00pm	Powering the Future: Is AI Just Buzz or the Real Deal in Energy? Nefeli Moridis, Ph. D., Global Head of Subsurface Energy Solutions, NVIDIA	As global demand for more efficient energy solutions rises, AI is increasingly touted as a transformative force in the energy sector. But is AI truly driving meaningful innovation, or is it simply the latest industry buzzword? This presentation explores the current and potential roles of AI across the energy value chain — from predictive maintenance, to reservoir management, to renewables in the energy sector. By examining real-world case studies, emerging technologies, and the challenges of implementation, we aim to separate the hype from the reality. Attendees will gain a critical understanding of AI's tangible impact on energy systems today, along with the strategic considerations necessary to harness its full potential in powering the future.
2:00pm	Megatrends and Emerging Futures of HPC and AI Shahin Khan, CXO, Board member, Analyst	How come there are so many big technology trends around us right now? IoT, 5G, AI, Crypto, Quantum, Cybersecurity, Robotics, Space Tech, Metaverse, Bio Tech, and on and on. What's going on? What do they impact? And do they have anything to do with HPC? We discuss these and propose a formulation in a historical context.



Agenda (continued)

2:45pm	Using GenAI to Autoconfigure HPC/AI Server Infrastructure Shardool Pathak, Software Engineer	In this talk, Shardool will dive into how his service, Cloud Cascade, utilizes generative AI to simplify and accelerate HPC/AI infrastructure configuration. He will explore how AI can automatically generate optimized infrastructure setups tailored to specific workloads, perform intelligent cost analysis across major cloud platforms, and enable seamless cloud-to-cloud conversion. By combining these capabilities, Cloud Cascade helps organizations of all sizes make high-performance computing more accessible, efficient, and cost-effective.
3:15pm	Break and Networking	
3:30pm	Roadmap to Quantum Value: The Power of a Billion Minds William "whurley" Hurley, Founder & CEO, Strangeworks	Strangeworks is a group of experienced serial entrepreneurs, enterprise software developers, and quantum physicists who seek to humanize quantum computing and make it accessible to everyone. As whurley will share, it is time to talk about quantum computing in a non-physics way to reach an audience bigger than the 0.1% of scientists on the planet. The Strangeworks ecosystem provides access to over 100 quantum computing resources and features quantum computers from IBM, Rigetti, Aquila, IQM, D-Wave, and many others, all in an easy-to-get-started environment that allows you to deploy this technology of tomorrow, today.
4:15pm	Panel Discussion: HPC, AI, Quantum, and the Future of Science	Addison Snell will lead a fun and dynamic panel including Srikanth Gubbala, Nefeli Moridis, Shahin Khan, Shardool Patha, and whurley.
5:00pm	Wrap Up & Networking Doug Norton, President, HPC-AI Society	

