



NVIDIA DGX Spark Frontier Hackathon



Antler VC,
Austin TX



Dec 12 - 14



In
Person

Welcome to the Austin Tech Week AI Hackathon - Hosted by Nvidia & AITX! We're excited to host a diverse group of builders for a weekend.

Hacker Resources



The Hacker's Cheat Sheet: NVIDIA DGX Spark (Ascent GX10) (1)



DGX Spark Playbooks (1)



DGX Spark Livestreams (1)



SODA 3 Developer API (1)

[Join The Discord!](#)

This will be the easiest way to communicate with our team, get updates on the hackathon, and connect with other hackers. Please join ASAP!

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Build Challenges

Context

Teams will choose a build challenge and come up with a solution that meets the minimum required outcomes. What you build is more open-ended because we won't be asking for a specific product to be built from the dataset. The goal is to come up with a solution that you think best meets the needs of the outcomes we want to see.


 [Traffic Incident Insights](#)

 [Factory Safety & Efficiency](#)

 [Urban Growth & Infrastructure Intelligence](#)

Partner Challenges

 [Port-to-Rail Surge Forecaster & Utilization Optimizer \(Glīd\)](#)

 [The AI Research Impact Observatory - Symby AI](#)

 [AutoHDR](#)

🏆 Judging Criteria

Philosophy

We are judging **Systems Engineering**. A winning project isn't just a slide deck or a simple API wrapper; it is a functioning system that ingests raw data, processes it locally using the DGX Spark, and produces a valuable result.

The Scoring Breakdown (100 Points Total)

1. Technical Execution & Completeness (30 Points)

Did they actually build a working, complex system?

- **15 pts - Completeness:** Does the system successfully complete the full data workflow without crashing?
- **15 pts - Technical Depth:** Is there significant engineering "under the hood"? Did they build a complex pipeline (e.g., Simulation, RAG, Fine-Tuning, or Custom Logic) rather than just a simple static dashboard or basic API wrapper?

2. NVIDIA Ecosystem & Spark Utility (30 Points)

Did they leverage the unique hardware and software provided?

- **15 pts - The Stack:** Did they use at least one major NVIDIA library/tool? (e.g., NIMs, RAPIDS, cuOpt, Modulus, NeMo Models). *Note: Merely calling GPT-4 via API gets 0 points here.*
- **15 pts - The "Spark Story":** Can they articulate **why** this runs better on a DGX Spark?
 - *Examples:* "We used the 128GB Unified Memory to hold the video buffer and the LLM context simultaneously" or "We ran inference locally to ensure privacy/latency."

3. Value & Impact (20 Points)

Is the solution actually useful?

- **10 pts - Insight Quality:** Is the insight non-obvious and valuable? (e.g., "Traffic jams happen at 5 PM" is obvious. "Rain causes specific stalls on this specific ramp" is valuable).
- **10 pts - Usability:** Could a real Fire Chief, City Planner, or Factory Foreman actually use this tool to make a decision tomorrow?

4. The "Frontier" Factor (20 Points)






Did they push the boundaries?

- **10 pts - Creativity:** Did they combine data or models in a novel way? (e.g., Using vision models to "read" traffic maps).
- **10 pts - Performance:** Did they optimize the system for speed or scale? (e.g., "We optimized the simulation to run at 50x real-time speed").

Submission Checklist

Agenda - Day 1 12th

Dec

 <u>Doors Open + Check-in</u>	5:00 PM - 5:30 PM
 <u>Kick Off: Welcome & Hackathon Intro</u>	5:45 PM - 6:05 PM
 <u>DGX Spark Overview</u>	6:05 – 6:20 PM
 <u>DGX Spark Unboxing</u>	6:20 – 6:45 PM
 <u>Team formation, DGX Spark Checkout</u>	6:45 – 8:00 PM

 Dinner Served (Pizza)

8:00 – 9:00 PM

 Hacking Begins

9:00 PM Onwards

Agenda - Day 2

13th

Dec Breakfast

8:30 AM - 9:30 AM

 Continue Hacking

9:30 AM - Onward

 Lunch Served12:30 PM - 2:30
PM Spark Q&A12:30 PM - 1:30
PM Progress Checkin

6:30 PM - 7:00 PM

 Dinner Served (Chipotle)

7:00 PM









 Overnight Hacking

7:00 PM - Onwards

Agenda - Day 3

14th

Dec

 <u>Breakfast</u>	8:30 AM - 9:30 AM
 <u>Code Freeze - Submissions Due!</u>	11:00 AM
 <u>Judging</u>	11:30 AM - 12:30 PM
 <u>NVIDIA Developer Roundtable</u>	11:30 AM- 11:45 AM
 <u>NVIDIA Developer Roundtable</u>	11:45 AM - 12:30 PM
 <u>Hack Fair Station Setup</u>	12:45 PM - 1:15 PM
 <u>Hack Fair & Public Voting</u>	12:00 PM - 4:00 PM
 <u>Finale: NVIDIA Keynote, Awards, Winner Demos</u>	3:00 PM - 4:00 PM


Hacker Resources

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 If you have any questions, please email us at team@aitxcommunity.com

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