Snapdragon Multiverse Hackathon

Qualcomm Technologies x
Princeton University x Samsung

Event Guide

Table of Contents

Event Details

Overview

Snapdragon Multiverse Hackathon

September 27–28, 2025

Location: Princeton University | Princeton, NJ

Target Platform: Copilot+ PC powered by Snapdragon X Elite processor as the control surface & Galaxy S25 mobile device; any other Snapdragon device or multicontroller

Hackathon tracks / Challenge themes

Track 1: Real-time CV Assistant

- Platforms: Compute, Mobile device
- AI Branch: Computer Vision, Edge AI
- Objective: Develop an application performing real-time computer vision analysis (object tracking, scene understanding, anomaly detection, or gesture recognition) optimized for on-device inference, optionally enhanced by cloud augmentation.
- Example: License plate detection app to track cars coming in and going out of a parking lot.

Track 2: Conversational AI Companion

- Platforms: Compute, Android, Cloud, or Wearable
- AI Branch: Natural Language Processing, Generative AI
- Objective: Build an interactive conversational AI application capable of voice or text-based interaction, delivering real-time contextually aware responses for tasks like wellness coaching, tutoring, coding assistance, or creative storytelling
- Example: AI dungeon master that can be used to create and narrate dungeons and dragons adventures.

Track 3: RL Agent Arena

- Platforms: Compute, Cloud, Microcontroller
- AI Branch: Reinforcement Learning, Simulation
- Objective: Build an interactive environment representing a real-world scenario and train an agent or team of agents to solve the scenario. Bots should have access to the environment state at a minimum, but models could use AI tools or data augmentation techniques to improve their performance above the baseline environmental inputs.
- Example: Build a bot to dynamically handle traffic lights at an intersection in a simulated environment.

Description

Step into the Snapdragon multiverse on September 27-28, 2025 at Princeton University, where teams of 3-5 will explore the future of multi-device communication. Each team will receive a Copilot+ PC powered by Snapdragon® X Series processors as their control surface and a Samsung Galaxy S25 powered by the Snapdragon 8 Elite. Teams are also encouraged to bring their own Snapdragon-powered devices or microcontrollers to build seamless, intelligent cross-platform experiences.

Whether you're syncing mobile sensors, orchestrating edge workflows, or creating immersive multi-screen interactions, this event is your playground for innovation. The goal: prototype the next generation of connected computing using the Snapdragon ecosystem.

Grab your friends to form a team and choose a track below that interests you. Each track is designed to showcase the power of Snapdragon across platforms – from PCs to phones to microcontrollers, there's a challenge waiting for you!

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- Example: Build a bot to dynamically handle traffic lights at an intersection in a simulated environment.

Expect hands-on support, networking, marketing, and amplification opportunities as well as prizes for the winning teams. Don't worry – there will be swag for everyone! Note that the winners will be selected overall, **not per track**.

Let's come together and re-define what multi-device collaboration looks like – powered by Snapdragon. Registration open until September 12th – secure your spot today!

Only one project proposal submission per person is allowed.

Event Schedule

Saturday, September 27

11am | Check-in
11:30am | Lunch
12:15 pm | Event Kick-Off
12:15 – 12:45 pm | QC DevRel (Welcome, AI Stack overview)
12:45 – 1:00 pm | Ray Stephenson (Qualcomm Cloud DevRel)
1:00 pm | **Hack begins**
5 pm | Dinner
8 pm | Day 1 wrap-up (end of onsite support)
10 pm | Participants who aren't Princeton students need to leave the building
2 am | Campus Center closes

Sunday, September 28

10 am | On-site support returns
11-1 pm | Brunch
1:00 pm | **Application submission deadline**
1 – 4 pm | Team App Demos
4 – 4:15 pm | Device collection
4 – 4:45 pm | Evaluation & Judging
4:45 – 5 pm | Winners Announced
5 – 7 pm | Social reception & networking

Logistics

- Meals, coffee, and refreshments will be provided throughout the event
    - Saturday: lunch and dinner provided
    - Sunday: lunch and dinner provided

- Teams may take their Qualcomm-provided laptop and mobile device as long as the Team Lead has signed and returned the Loaner Agreement.

Team Proposals

- Teams of 3 – 5 developers
- One proposal submission per team

Submission Requirements

- Each team must submit a proposal for an AI use case application leveraging open source software that would run natively on a Snapdragon-powered laptop.
- The proposal must be the work and/or idea solely owned by the team members.

Event Kick-off / Master Class

Event kickoff will include introductions from the sponsors and a master class - an overview of Qualcomm's AI Stack, recommended tools to use during the hack, and a brief walk through of a sample app.

Loaner Agreements

Each team that takes a device will need to complete a loaner agreement. One person from the team should fill out the form (name, home address, and signature) and return to a Qualcomm employee prior to receiving a device.

Mentors

5-10 industry experts will be onsite and available to help teams when they are stuck. Mentors are available to help teams stay unblocked and on track – not to build their project for them.

Team Demos

Each team will have 5 minutes to talk about and demo their application. They should highlight the main features and technologies used. No need for a .ppt with a business pitch.
Each demo will be timed and be held to only 5 minutes so each team is able to present.

Judging

We will have 2 winning teams. After each team has a chance to demo, each team will vote for their favorite application (one vote only and can't vote for their own team) and the judges will also evaluate each application. Highest scoring application will win the Top Award and the team with the most votes from participants will win the Team's Choice Award.

We will have 5-7 judges for the event. Judges can also be mentors.

Judges:

- Prashant Sharma, Qualcomm
- Nick Debeurre, Qualcomm
- Ray Stephenson, Qualcomm
- Emma Lacey, Qualcomm
- Frooti Govindappa, Qualcomm
- Tommy Azzino, Qualcomm
- Dr. Abelardo Lopez, Latent AI
- Ebad Syed, Latent AI

Evaluation Criteria

Submissions will be judged on the following criteria:

i. **Technical Implementation** (40 points)
   Evaluation based on NPU utilization, latency and performance, and energy efficiency.
ii. **Application Use-Case and Innovation** (25 points)
   Evaluation through the lens of problem solving, creativity and uniqueness, and user experience.
iii. **Local Processing and Privacy** (15 points)
   Evaluation based on on-device execution and privacy and security.
iv. **Deployment and Accessibility** (10 points)
   Evaluation based on ease of installation and use.
v. **Presentation and Documentation** (10 points)
   Evaluation based on the clarity of explanation during the presentation, and code quality and documentation.

Prizes

Top Prize (selected by judges):

- One (1) Meta Quest 3 512GB All-n-One Mixed-Reality Headset for each member of the team
- Qualcomm DevRel support to complete application
- Blog + Live Stream opportunities

Team's Choice (team popular vote):

- One (1) Ray-Ban Meta AI Glasses for each member of the team
- Qualcomm DevRel support to complete application
- Blog + Live Stream opportunities

*The Top Prize winner cannot be the Team's Choice award winner

Project Submission Requirements

To be considered for the prize, your submission must meet the following basic criteria:

i. The application shall not include any closed-source existing code; all codes shall be open for consumption and available to the public.

ii. The application must be provided in a GitHub repository, with the following files in addition to your code:

1. A README file with the following information:
    a. An application description;
    b. Names and emails of all Eligible Individuals on the Team;
    c. Setup instructions from scratch, including dependencies if applicable;
    d. Run and usage instructions; and
2. An open-source license (please refer to https://choosealicense.com for help choosing).
3. A **packaged executable file for windows (.EXE)** that includes all functionality for the app to streamline judging and Windows app store submission. A **packaged windows app (.MSIX)** is also acceptable.

iii. The application must be runnable using your provided instructions.

iv. The application and most components must run on the edge (hybrid edge/cloud is acceptable, but the majority should run locally on device).

v. The application must be capable of being successfully installed and run on the Platforms for which it is intended and must function as depicted in the text description.

vi. The application must be developed and/or commercially ready to the extent that it may be deployed on app store or other open source platform for users to download.

vii. The GitHub repository containing your application must be submitted by the Submission Period. Such GitHub repository must be submitted via Microsoft Forms. The link to the Form will be provided by Sponsor at the beginning of the onsite event.

viii. (Optional) – The following components are highly recommended but not mandatory:

4. Tests and testing instructions to verify the app setup;
5. Notes section containing additional information not covered in the application description;
6. References used while developing the application; and
7. Well-commented code.

Swag

Swag will be available for all participants.

Resources

Qualcomm Developer Resources

Qualcomm Developer Home	https://qualcomm.com/developer
Windows on Snapdragon Core Developer Docs	https://docs.qualcomm.com/bundle/publicresource/topics/80-62010-1/core-app-overview-.html?product=1601111740057789
Windows on Snapdragon AI Developer Docs	https://docs.qualcomm.com/bundle/publicresource/topics/80-62010-1/ai-app-development.html?product=1601111740057789
Qualcomm Developer Projects	Awesome Qualcomm Developer Projects
Qualcomm AI Inference Suite (Cloud)	https://www.qualcomm.com/developer/software/qualcomm-ai-inference-suite

DevRel AI Sample Apps

Extensible python sample apps that can be forked as starting points for projects. Star to save for later!

Simple NPU Chatbot w/ AnythingLLM	https://github.com/thatrandomfrenchdude/simple_npu_chatbot
NPU Pose Detection w/ AI Hub	https://github.com/quic/Pose-Detection-with-HRPoseNet
Local Agent w/ LM Studio	https://github.com/thatrandomfrenchdude/local-agent
Simple Whispr Transcription w/ AI Hub	https://github.com/thatrandomfrenchdude/simple-whisper-transcription
Qualcomm AI Inference Suite (Cloud) Samples and Tutorials	https://docs.qualcomm.com/bundle/publicresource/topics/80-88545-1/index_tutorials.html?product=1601111740095226

AI Hub

Qualcomm AI Hub Models	https://aihub.qualcomm.com
AI Hub Getting Started	https://aihub.qualcomm.com/get-started
AI Hub Slack Community	https://qualcomm-ai-hub.slack.com/
AI Hub Model notebook	https://tinyurl.com/demo-aihub
AI Hub Bring Your Own Model notebook	https://tinyurl.com/byom-aihub

Third-Party Tools

Neo4J Graph Builder	https://github.com/neo4j-labs/llm-graph-builder/
AnythingLLM	https://anythingllm.com/
Microsoft AI Dev Gallery	aka.ms/ai-dev-gallery-store
LM Studio	https://lmstudio.ai

Participant-provided Tools

The following resources have been generated by teams participating in this or previous hacks and are made available to all participants to ensure fairness.

Voice Stress Detection Model	https://github.com/chhavi876/ShieldHer/tree/main/ai_model

Previous Hackathon Apps

Tutor.AI Sample App	https://github.com/nirmal141/tutor-ai
R.E.D.A.C.T. Sample App	https://github.com/abhishekk962/redact

Support

We will have mentors available to ask questions in person.

Additionally, feel free to reach out on Qualcomm Discord for 24/7 support:
https://discord.com/app/invite-with-guild-onboarding/qualcommdevelopernetwork