

MHacks 2024 Resources Guide

Table of Contents (click a name to go to their resource page!)

1. [Warp](#)
2. [Aptiv](#)
3. [Caterpillar \(CAT Digital\)](#)
4. [Google](#)
5. [Intel](#)
6. [Uber](#)
7. [Grog](#)
8. [U-M Information and Technology Services \(UM-ITS\)](#)
9. [Free-WiLi](#)
10. [Cartesia](#)
11. [Telora](#)
12. [Magic Loops](#)
13. [Boundary ML](#)

Warp

- **Resources:** warp.dev
- **People:**
 - Advait Maybhate – SWE
 - Hong Yi Chen – Growth Product Manager
- **Workshop:**
 - **Title:** *How to Become a Command Line Connoisseur*
 - **Presenters:** Advait Maybhate & Hong Yi Chen
 - **Description:** In this workshop, we'll dive deep into terminal tips and tricks to increase your developer productivity, with awesome CLI tools. From beginners to terminal veterans, we'll have something for everyone. We'll also cover how the terminal interacts with the shell/PTY and some cool terminal history! This workshop is brought to you by the terminal experts at Warp, a blazingly-fast terminal app for the 21st century (warp.dev). Bring your laptops!
 - **Duration:** 45-60 minutes (including Q&A)
- **Prize:**
 - **Challenge:** *Best Developer Tool*
 - **Description:** Build a hack that focuses on improving the developer experience in some meaningful way - this could be tackling any part of the development lifecycle (creating, modifying or testing software)!
 - **Judging Criteria:**
 1. Does the project improve the developer experience?
 2. Wow factor: Does the project stand out?
 3. Technical difficulty: How technically complex is the project?
 4. Originality: Is the project new or unique?
 5. Design: Is the project easy to use and polished?
 - **Additional Notes:**
 1. Note that many developer tools may not have traditional GUIs - we are referring to all relevant aspects of UI/UX design here, there's no need to add a GUI for the sake of adding one!
 2. As a sidenote, if you're on a Mac/ Linux/ WSL we'd love for you to try out Warp as a terminal (warp.dev)! Feel free to give us your feedback at our sponsor table or in our public GitHub repository :) [Note that this will have no impact on judging.]

Aptiv

- **People:**
 - **Erin Devereaux — Early Talent**
- **Prize:**
 - **Challenge:** *Greener, Safer, or More Connected Mobility*
 - **Description:** Greener, safer or more connected mobility hacks can be any hack that tackles any of the following problem areas. Hackers can focus on one area or many:
 - I. Greener Mobility:
 - Focusing on zero emission
 - Carbon neutral
 - Use of AI in solution is encouraged, but not necessary
 2. Connected Mobility:
 - Connecting to the cloud and objects around the vehicle (ex. Car, spaceship, tractor, etc.) to other vehicles, pedestrians, debris, etc)
 - Use of AI in solution is encouraged, but not necessary
 3. Safer Mobility:
 - Zero accidents
 - Zero fatalities
 - Use of AI in solution is encouraged, but not necessary
 - **Judging Criteria:**
 - I. Hacks will be judged based on how well they address any of the above problem areas!
 - **Prizes:**
 - I. Best hack that tackles greener, more connected, or safer mobility. (Will consider separating prize into multiple categories (one for each) depending on submissions.

Caterpillar (CAT Digital)

- **Resources:** [Caterpillar Career Page](#)
- **People:**
 - Megan Tomala — Recruitment Specialist
 - Josh Carrington — Digital Tech Support Analyst
 - Vigna Gajarla — Software Engineer
 - Dmitry Tyomkin — Senior Digital Product Manager
 - Nimish Mathur — Data Scientist
- **Workshop:**
 - **Title:** *Code in the Dark Challenge*
 - **Capacity:** Unlimited
 - **Description:** Code in the dark! Black lights, glow sticks, party lights, etc.
 - **Prizes:** Prizes at the end for 1st, 2nd and 3rd place
- **Prizes:**
- *Best Cloud Implementation*
 - **Description:** Highest possible level of utilization of native cloud resources and technologies.
 - Desk pad with charger
 - Magport tri-fold charger (15W wireless MagSafe charger, 2.5W Apple Watch charger, 5W wireless charger)
- *API Prize*
 - Wireless earbuds
 - Magport tri-fold charger (15W wireless MagSafe charger, 2.5W Apple Watch charger, 5W wireless charger)

Google

- **Resources:**
 - [Breadboard AI Docs](#)
 - [Build With Breadboard \(Docs\)](#)
 - [Build With Breadboard \(Video\)](#)
- **People:** Bakary Diarrassouba — TPM
- **Prize:**
 - **Challenge:** *Best Breadboard Application*
 - **Description:**
 1. Using Google AI's Breadboard, turn those ideas into reality! This track challenges you to build a prototype generative AI application that tackles a fun or everyday problem.
 2. No idea is too wild! Imagine:
 - An AI DJ that crafts personalized playlists based on your mood... and the weather.
 - A story generator that collaborates with you to build fantastical worlds.
 - A tool that turns your doodles into stunning works of art.
 - **Judging Criteria:**
 1. Creativity & Originality (30%):
 - How unique and imaginative is the project concept?
 - Does it explore novel applications of generative AI?
 - Does it push the boundaries of what Breadboard can do?
 2. Technical Implementation (25%):
 - How effectively are Breadboard's features used?
 - Is the project well-structured and modular (if applicable)?
 - Does it demonstrate a good understanding of the technology?
 3. User Experience & Design (20%):
 - Is the application or tool intuitive and enjoyable to use?
 - Does it have a clear purpose and flow?
 4. Fun Factor & "Wow" Moment (15%):
 - Does the project spark joy, surprise, or a sense of wonder?
 - Is it something that people would want to share and talk about?
 5. Potential Impact (10%):

- Could this project have real-world applications, even if small-scale?
- Does it address a problem, even a lighthearted one, in an interesting way?
- Does it inspire new ways of thinking about AI and its possibilities?

○ **Prizes:**

1. 1st place 🏆 \$1000
2. 2nd place 🥈 \$700
3. 3rd place 🥉 \$300

Intel

Unleash your creativity and build cutting-edge AI applications with Intel-optimized software on the latest Intel hardware. Tackle real-world challenges using Intel technology in your hackathon project for a chance to win awesome prizes. Join the Best Use of Intel AI track and demonstrate the future of AI innovation.

Get a head start:

- Create an Intel® Tiber™ Developer Cloud account at cloud.intel.com/MHacks
- Click Get Started
- Subscribe to Standard service tier and complete cloud registration

Show your account to an Intel rep at the Intel booth to grab some **awesome swag** and enter a **raffle** for an **AI PC!** (Must show account and image created using the Text-to-Image with Stable Diffusion notebook)

At the hackathon:

We'll be providing AI PCs for your team to use for your hackathon project! Intel experts will be there to support your team and answer any questions.

Stop by our booth to grab some awesome swag and enter a raffle for an AI PC!

- **Resources:**
 - [HackPack](#) (Helpful information on Intel Tiber Developer Cloud and AI PC):
 - [Best Use of Intel AI Scoring Rubric](#)
- **People:**
 - Gabrielle Amoranto — Program Manager
 - Ben Odom — Developer Evangelist
 - Ugonna Chikezie — Student Ambassador Program Lead
 - Praveen Kundurthy — AI Solutions Engineer
 - Murilo Gustineli — Senior AI Software Engineer
- **Workshop I:**
 - **Title:** *Kickstart Your Projects with Intel Technology*
 - **Capacity:** Unlimited
 - **Description:** Unlock the potential of the latest Intel hardware in this hands-on workshop. Learn how to excel in Intel's hackathon track and apply these skills to future projects. We'll guide you through the Intel® Developer Cloud, covering the basics of getting started and utilizing oneAPI tools and code samples. Then, we'll

explore AI PCs, demonstrating how to develop AI applications and maximize their potential for your projects.

- **Workshop 2:**

- **Title:** *Fine-Tune a SoTA LLM in 5 Minutes*
- **Capacity:** 50+
- **Description:** This workshop will teach you how to fine-tune a 7B LLaMa model in less than 6 minutes on a Gaudi 2 processor, a powerful resource for hackathon participants. Learn to use the Hugging Face tooling through the Optimum Habana library and accelerate training and inference across 8 Gaudi 2 cards using tools like DeepSpeed. This knowledge is crucial for hackathon participants interested in developing custom models, as access to such powerful compute resources is rare!

- **Prize:**

- **Challenge:** *Best Use of Intel AI Tools/Libraries or Intel AI PC Development*
- **Judging Criteria:** Refer to the scoring rubric
- **Prizes:**
 1. **1st Place:** \$2500 Intel Developer Cloud credits + Lenovo ThinkPad X1 Carbon
 2. **2nd Place:** \$1000 Intel Developer Cloud credits + Sparkle Intel Arc A770 Titan OC Edition
 3. **3rd Place:** \$500 Intel Developer Cloud credits + Sparkle Intel Arc A750 ORC OC Edition

Uber

- **People:**
 - Heather Henderson — Recruiter
- **Workshop:**
 - **Title:** *Tech-Life Balance: Overcoming Digital Burnout*
 - **Presenters:** Heather Henderson
 - **Description:** Feeling overwhelmed? Do you find yourself escaping into the digital world, only to feel more burnt out and disconnected from real life? You're not alone. Join us for an empowering session on reclaiming your life from digital burnout. Discover how to balance your relationship with technology, reducing stress and enhancing your overall well-being. Learn practical strategies to use tech as a tool to enrich your life, not drain it. Don't miss this chance to overcome digital burnout and start living your best life!
 - **Duration:** 30 minutes

Groq

- **Resources:** [form for requesting increased Groq rates](#)
- **People:**
 - Soami Kapadia – SWE Intern
 - Amanda Dalton — Sr. Brand Design Lead, Brand Team
- **Workshop:**
 - **Title:** *How to Use Groq Cloud for Fast AI Inference*
 - **Description:** Learn how to use Groq Cloud to speed up AI inference for your projects!
- **Prize:**
 - **Challenge:** *Best App Built on Groq*
 - **Judging Criteria:** Originality, utility, creativity
 - **Prizes:**
 - I. \$500 credit to the Groq Swag Store (shared among team members)

U-M Information and Technology Services (UM-ITS)

- **Resources:**
 - [Information and Technology Services](#)
 - [UM-ITS GenAI resources](#)
 - [Upcoming Internship Program](#)
- **People:**
 - **Tom Burns — Director of Marketing & Communications**

FREE-WiLi

- **Resources:** freewili.com
- **People:**
- **Prize:**
 - **Challenge:** Best Use of FREE-WiLi Application
 - **Description:**
 - **Judging Criteria:**
 - I.
 - **Prizes:**
 - I.

Cartesia

- **Resources:** [Cartesia API Documentation](#)
- **People:** Ivory Tang — Growth strategies and developer engagement
- **Prize:**
 - **Challenge:** *Best Use of Sonic (Cartesia's TTS API)*
 - **Description:** Integrate text-to-speech (TTS) technology using Cartesia's Sonic API.
 - **Judging Criteria:**
 1. How central / impactful is the use of TTS in your hackathon project?
 2. What are the real world applications of this TTS integration?
 3. How technically challenging is the project itself?
 4. How novel is the use case and does it make sense?
 5. Does the project help showcase many of Sonic's capabilities?
 - **Prizes:**
 1. Yoshi (everyone in our company has one)
 2. Cartesia API credits

Telora

- **People:**
 - Eliam Medina — Founder
- **Workshop:**
 - **Title:** *Starting a startup? Here's everything I wish I knew.*
 - **Description:** Learn lessons on startups from a successful YC-backed startup founder!

Magic Loops

- **Resources:** magicloops.dev
- **People:**
 - Adam Williams — Founder
 - Vivek Santhapur — Intern
- **Workshop:**
 - **Title:** Building apps with Generative AI
 - **Presenters:** Adam Williams
 - **Description:** In this workshop, you'll learn all about Magic Loops and how to build custom, innovative apps with the modern power of GenAI!
 - **Duration:** 45 minutes
- **Prize:**
 - **Challenge:** *Best Use of Magic Loops*
 - **Description:** Easily integrate AI into your hacks.
 - **Judging Criteria:** Judged by Magic Loops team.
 - **Prizes:**
 - I. \$500 (open to 2nd and 3rd place if appropriate)

Boundary ML

- Resources:
 - docs.boundaryml.com
 - If you need any LLM help at any point during the hackathon, find the person in purple shirt with a LAMB on it and ask!
- People:
 - Vaibhav Gupta (CEO)
- Workshop:
 - Topic: BAML: Building LLM agents that don't fail
 - This will be a live coding session! We'll talk about structured outputs and how they work and don't work and include a quick prompting bootcamp of the top 5 things we've seen work for companies building LLM apps. Learn how to do Chain-of-thought, reasoning. This will apply to anyone using Python, Typescript, NextJS, or Go. These examples will work for anyone using OpenAI/Anthropic/Gemini/Groq.
 - Turning away ~\$1M TC for \$0 at my own startup
 - I'll share how it felt to make that decision, regrets, and my advice about why being a founder isn't as glamorous as it sometimes is made out to be, even after YC. And most importantly, I'll share my top 10 reasons why you likely shouldn't be a founder.
- Prizes:
 - \$500 to the best show case of an LLM Agent
 - Judging criteria:
 - Completeness (Does the code work and will it demo live)
 - Correctness (How buggy is it and how robust is the app)
 - Creativity and complexity
 - Bonus points for using BAML (But not a requirement)

Roboflow

- Resources: roboflow.com
- Workshops:
 - Computer Vision for Hackers Virtual Workshop
- Prizes:
 - Best Use of Roboflow Workflows
 - Roboflow's open source ML deployment tool
 - Reward:
 - Raspberry Pi 5 dev kit for each team member (up to 4)