MAC-A-THON

Opening Ceremony 2025

Build with AI

Google Developer Groups

Agenda

1. About GDG: McMaster
2. Build with AI
3. Hackathon Introduction
4. Prize Categories
5. Rules & Submission Criteria
6. Workshops and Meals

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Google Developer Groups

Build with AI

Who are we?

Build with AI

A message from the Admin Team

Google Developer Group

McMaster University

GDGs on Campus provide learning opportunities for aspiring developers from universities and colleges around the world, allowing them to gain hands-on experience, develop essential skills, and build a strong foundation for a tech career.

Google Developer Group

McMaster University

- Open Source Team
- Community Team
- Conferences Team
- Marketing Team

Build with AI

Hackathon Theme

Build with AI

A Google Developers Event Series to showcase the many uses of Artificial Intelligence (AI)

- Help developers acquire and apply Generative AI skills to build and integrate applications
- Become familiar with Google AI Technologies, including AI Studio, the Gemini and Gemma family of models, and Vertex AI.

Google Developer Groups

A set of large language models developed by Google Deepmind

- Powers the Gemini ChatBot
- Can understand and generate text, images, audio, video, and code

Gemma: A series of lightweight language models used for a variety of applications

- Gemma Models are open source and free to redistribute
- Used for text-to-text applications

A platform for developers to create AI based applications

- Allows users to experiment with models
- Develop apps to generate content and extract data
- Part of Google's Suite of AI Technologies

Resources

Gemini AI Cookbook:
https://github.com/google-gemini/cookbook

Gemma AI Cookbook:
https://github.com/google-gemini/gemma-cookbook

LLM Inference API (Run Models completely on-device):
https://ai.google.dev/edge/mediapipe/solutions/genai/llm_inference?_gl=1*1cfgkpo*_up*MQ..*_ga*MTUxMzM0MzUzNC4xNzM4MjcxMTY5*_ga_P1DBVKWT6V*MTczODI3MTE2OS4xLjAuMTczODI3MTE3NS4wLjAuMzYwMzAyMzk.#get_started

Getting started with AI using Google Vertex AI:
https://github.com/GoogleCloudPlatform/generative-ai

Build with AI

About the Hackathon

Your task

1. Create a problem statement
2. Brainstorm and discuss potential solutions
3. Prototype a potential solution
4. Create a visual aid for your presentation
5. Demo your project for the judges

Your task

Develop a solution to tackle a ‘real-world’ issue using Artificial Intelligence

- Each project **must** use some form of Artificial Intelligence as part of the solution
- Teams must use **one or more** Google Technologies, which include:
  - Google Cloud
  - Firebase
  - Gemini
  - Flutter
  - And More!

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Your task

Ideate and map-out different strategies to address the problem statement

- Collect and organize all ideas
- Discuss strengths and limitations of solutions
- Be open-minded!
- Determine one solution that you think may work best

1. Create a problem statement
2. Brainstorm and discuss potential solutions
3. Prototype a potential solution
4. Create a visual aid for your presentation
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Your task

Find a way to prototype and visualize your solution

- Prototypes **do not** have to be functioning products - they should demonstrate what the product will look like
- The prototype should clearly demonstrate how Artificial Intelligence will be used

1. Create a problem statement
2. Brainstorm and discuss potential solutions
3. Prototype a potential solution
4. Create a visual aid for your presentation
5. Demo your project for the judges

Your task

Your submission should aim to include some form of Visual Aid

- Visual aids can be anything (digital or physical) that help others understand your problem statement and your project
- Examples include:
  - Slideshows
  - Infographics
  - Pictures
  - Videos

1. Create a problem statement
2. Brainstorm and discuss potential solutions
3. Prototype a potential solution
4. Create a visual aid for your presentation
5. Demo your project for the judges

Your task

Judging will take place on Sunday

- Teams will set up on individual tables, and judges will visit each table
- Refer to the judging criteria in the Participant Package to understand how you will be assessed

1. Create a problem statement
2. Brainstorm and discuss potential solutions
3. Prototype a potential solution
4. Create a visual aid for your presentation
5. Demo your project for the judges

Things to Remember

Hacking Begins: Saturday @11:00 AM

Hacking Ends: Sunday @12:00 PM

Judging begins: Sunday @2:00 PM

Refer to your Participant Package for Workshop and Mini-event Times

Build with AI

Rules and Submission Criteria

Important info...

Eligibility

All post-secondary students enrolled in an accredited institution are allowed to participate in this hackathon. All hackers must attend the event in-person, though not all elements of the hackathon require attendance.

Important info...

Team Formation

This hackathon can be tackled as a team or individually. Teams can be no larger than 4 participants, and all members must have signed up and RSVP’d for the event.

Important info...

Submission Guidelines

Each project should be submitted no later than 12:00 PM on Sunday, February 2nd, 2025. Projects submitted after this time may not be included in the judging schedule, and will thus be disqualified. All project files submitted to Devpost must be final, and no modifications shall be made afterwards.

More info on submission requirements on Devpost

Important info...

Be Respectful

Throughout the duration of the hackathon, please be respectful to the volunteers, organizers and fellow hackers. GDG McMaster may disqualify you, your team or your project from the hackathon if you fail to be respectful to those around you in any hackathon space.

Refer to our Devpost Page for the Hacker Code of Conduct

Best Overall Hack prize: Samsung 24” S3 Monitor

Runner-up prize: Mini Projector

*Model may vary

We also have prize categories!

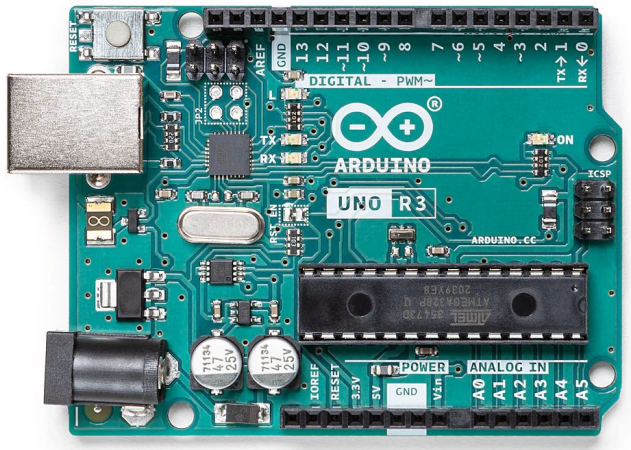
- Judging your project based on the prize categories is optional (decided on submission on Devpost)
- Projects must include a problem statement that addresses the category.

We also have prize categories!

Prize Categories:

- Best Gender Equality Hack
- Best Sustainable Hack

Best Gender Equality Hack: Arduino Kit



Google Developer Groups

Best Sustainable Hack: JBL Tune Headphones

Participant Package

Link to Package:

https://drive.google.com/file/d/1J1NQh5a-jOcY1Krf0RcZb1RY7MO6Sdku/view?usp=sharing

Build with AI

Workshops and Meals

Workshops

- Intro to App Building with AI
- Crafting an Impactful Portfolio
- Build ChatGPT from Scratch
- Co-op and Employability
- Women in Tech Panel
- Introduction to Google Gemini
- The Role of Software in Astrophysics

Workshops

- **Intro to App Building with AI**
- Crafting an Impactful Portfolio
- Build ChatGPT from Scratch
- Co-op and Employability
- Women in Tech Panel
- Introduction to Google Gemini
- The Role of Software in Astrophysics

Intro to App Building with AI

Time: Saturday @10:45 AM
Location: Room 127

Presenter: Alice Keeler

Workshops

- Intro to App Building with AI
- **Crafting an Impactful Portfolio**
- Build ChatGPT from Scratch
- Co-op and Employability
- Women in Tech Panel
- Introduction to Google Gemini
- The Role of Software in Astrophysics

Crafting an Impactful Portfolio

Time: Saturday @11:30 AM
Location: Room M24

Presenter: GDSC Community Team

Learn how to showcase your skills and achievements effectively! This workshop covers key portfolio elements, design tips, and strategies to make your work stand out for jobs, internships, and hackathons. 🚀

Workshops

- Intro to App Building with AI
- Crafting an Impactful Portfolio
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Building ChatGPT from Scratch

Time: Saturday @1:30 PM
Location: Room M24

Presenter: Rawan Mahdi

Build ChatGPT from Scratch: A tutorial on how to build transformer models using Python. It'll cover the basic building blocks, some of the theory, and will provide a runnable collab notebook.

Workshops

- Intro to App Building with AI
- Crafting an Impactful Portfolio
- Build ChatGPT from Scratch
- **Co-op and Employability**
- Women in Tech Panel
- Introduction to Google Gemini
- The Role of Software in Astrophysics

Co-op and Employability

Time: Saturday @2:30 PM
Location: Room M24

Presenter: Valerie Preston (Career Educator)

Workshops

- Intro to App Building with AI
- Crafting an Impactful Portfolio
- Build ChatGPT from Scratch
- Co-op and Employability
- **Women in Tech Panel**
- Introduction to Google Gemini
- The Role of Software in Astrophysics

Women in Tech Panel

Time: Saturday @3:30 PM

Location: Room M24

Panelists: Lauren Zhen, Eileen Xue, Hannah Shimoga

Workshops

- Intro to App Building with AI
- Crafting an Impactful Portfolio
- Build ChatGPT from Scratch
- Co-op and Employability
- Women in Tech Panel
- **Introduction to Google Gemini**
- The Role of Software in Astrophysics

Introduction to Google Gemini

Time: Saturday @4:30 PM
Location: Room M24

Presenter: McMaster AI Society

Workshops

- Intro to App Building with AI
- Crafting an Impactful Portfolio
- Build ChatGPT from Scratch
- Co-op and Employability
- Women in Tech Panel
- Introduction to Google Gemini
- **The Role of Software in Astrophysics**

The Role of Software in Astrophysics

Time: Saturday @5:30 PM
Location: Room M24

Presenter: McMaster Advanced Space Systems

Description…

Event Details

Wifi

McMaster Students:

Login to MCMASTER-WIFI using your Student ID

All other students:

Use eduroam

Google Developer Groups

Event Details

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McMaster Students:

Login to MCMASTER-WIFI using your Student ID

All other students:

Use eduroam

Food

Meals provided:
Saturday Lunch
Saturday Dinner
Sunday Breakfast
Sunday Lunch

Dietary Restrictions have been determined based on signup form info

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Accomodation

Overnight accommodation **will not** be provided by GDG: McMaster.

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Food

Meals provided:
Saturday Lunch
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Sunday Breakfast
Sunday Lunch

Dietary Restrictions have been determined based on signup form info

Accomodation

Overnight accommodation **will not** be provided by GDG: McMaster.

Parking

Parking **will not** be provided by GDG: McMaster.

Parking availability is subject to parking lot hours and location (see McMaster Website for more details).

Build with AI

A message from Alice Keeler

Google Developer Expert

Workshop 1:

Alice Keeler

Intro to AppScript

Google Developer Groups

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That’s a Wrap!

Stick around for a workshop presented by Alice!