Machine Learning for Mobile and Web using MediaPipe: HackPack

September 18, 2021 / 3:00 PM - 4:00 PM ET

Description

This workshop gives an introduction about MediaPipe which is an open source Machine Learning Solutions that allows running machine learning models on low powered devices and helps integrate the models with mobile/web applications. It gives these creative professionals and students a lot of dynamic tools and utilizes Machine learning in a really easy way to create powerful and intuitive applications without having much / no knowledge of machine learning beforehand. So we can see how MediaPipe can be integrated with web/mobile applications.

Learning Outcomes

Most of us are amazed by the applications of machine learning. But machine learning requires a certain amount of experience. But how can we integrate these models easily without needing to have little or no knowledge about machine learning in our applications. You will learn about that in this workshop on Tensorflow.JS MediaPipe.

Learn how to integrate complex machine learning algorithms to create really interactive and effective applications. It will be really great for beginners in machine learning or those involved in web/mobile development.

Leverage your existing web development or mobile development skills to create highly intuitive machine learning based applications during the hackathon.

This is what you will walk away from the workshop able to do:

- Learn about MediaPipe
- Learn how to integrate machine solutions in Web (Javascript)/Mobile (Android/ iOS) using MediaPipe



• Learn how to easily implement machine learning solutions in Web (Javascript)/Mobile (Android/ iOS) for your hackathon project

Prerequisite Knowledge

In order to get the most out of this workshop you should be comfortable with the following concepts:

- Basic JavaScript Syntax
- Basic CSS/HTML
- OPTIONAL: Basic Machine Learning knowledge

Pre-Workshop Checklist

Before the workshop, please make sure you complete the following items:

- Install your code editor of choice (VSCode, IntelliJ IDEA, Atom, and Sublime are all good options)
- Install your Git Client of choice (Git CLI, Github Desktop, GitKraken)
- Get ready to learn (and build)!

Timeline (1 hour)

Time	Module	Description
25 min	Introduction to MediaPipe	High level overview of an introduction to MediaPipe and the various solutions offered by MediaPipe
20 min	Creation of a MediaPlpe Selfie Segmentation Solution	Referencing and using the MediaPipe Selfie Segmentation solution to create landmarks.



10 min	Using the solution to showcase different use cases	Showcasing the landmarks and running it to show possible use cases such as background color/image changing.
5 min	Q & A and Closing Remarks	I will wrap everything up by discussing the kind of projects you can build at Hack The North using MediaPipe! We will also take up any questions related to MediaPipe

Workshop Lead Contact

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Additional Resources

Hack the North Resources

Hack the North 2021 Event Schedule

Check this out to stay up-to-date on activities, workshops, and other key happenings this weekend.

Workshop-Specific Resources

MediaPipe Solutions

MediaPipe.dev website to showcase various Machine Learning Solutions

MediaPipe Selfie Segmentation

An Insight into the MediaPipe Selfie Segmentation solution

General Resources

Intro to Javascript

A thorough introduction or refresher on Javascript. Feel free to use this to quickly prepare for the workshop.

