Intro to TensorFlow.js: Syllabus

January 14, 2020 / 8:00 PM - 9:00PM EST

Important Links

Workshop Hackpack

Pre-workshop checklist, and resources to explore during and after the workshop.

Hack the North 2020++ Event Schedule

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

Motivator

Curious how to make next generation web prototypes that scale using machine learning in browsers with JavaScript? Check this fast paced workshop by Jason Mayes (Senior Developer Advocate for research and machine intelligence at Google) and Shivay Lamba (Web & Open Source developer) that will give you the 101 on machine learning and Tensorflow.js and then dive into some live coding to see how to use it for a real world example.

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

No background in machine learning required but a basic working knowledge of JavaScript / HTML / CSS is preferred to get the most from the live coding examples. Take your first steps with AI and level up your prototypes for hackathons and beyond!

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

Learning Outcomes

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

- Learn about TensorFlow.js
- Learn how to integrate machine learning in Javascript using TensorFlow.js
- Learn how to easily implement machine learning models in Javascript for your hackathon project

Timeline (1 hour)

Time	Module	Description
25 min.	Introduction to TensorFlow.js	High level overview of an introduction to TensorFlow.js
10 min.	TensorFlow.js CDN and ML5.JS	Building our very own machine learning based object detection web application using TensorFlow.js
10 min.	Javascript Code for Image Classification	
5 min.	Loading machine learning model and using model predictions	
5 min.	Q&A Closing Remarks	