

HANNAH DAVIS

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**FRIENDLY MACHINE LEARNING WITH ML5.JS!**

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# SCHEDULE

9-10:30 Introduction, intro to ML in general

Break

10:45-11 Installing ml5, intro to ml5, downloading examples, setting up p5

11-12 Diving into ml5 models

















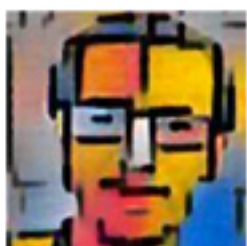

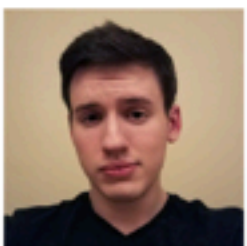





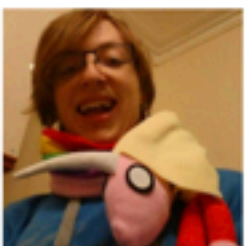

















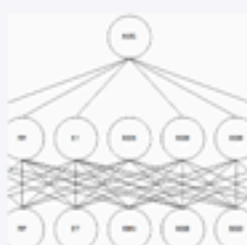

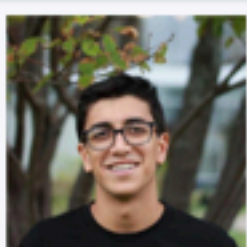

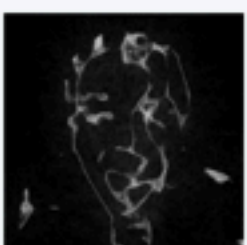
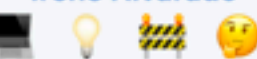






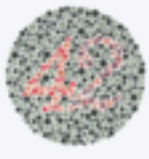







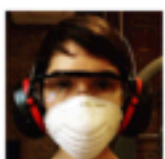






















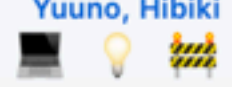






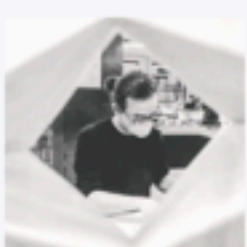







12-1 Lunch

1-2 Diving into ml5 models

Break

2:15-4 Independent or group work on your own programs

4-5 Presentation of final works (optional)

 <p>Daniel Shiffman</p> 	 <p>Cristóbal Valenzuela</p> 	 <p>Yining Shi</p> 	 <p>Hannah Davis</p> 	 <p>Joey Lee</p> 	 <p>AshleyJaneLewis</p> 	 <p>Ellen Nickles</p> 	 <p>Jasmine Otto</p> 	 <p>Zaid Alyafeai</p> 	 <p>Jacob Foster</p> 	 <p>Memo Akten</p> 	 <p>Mohamed Amine</p> 	 <p>Oliver Wright</p> 	 <p>Marshal Hayes</p> 
 <p>Itay Niv</p> 	 <p>Nikita Huggins</p> 	 <p>Arnab Chakravarty</p> 	 <p>Aidan Nelson</p> 	 <p>WenheLi</p> 	 <p>Darius Kazemi</p> 	 <p>Dingsu Wang</p> 	 <p>Reiichiro Nakano</p> 	 <p>Nikhil Thorat</p> 	 <p>Irene Alvarado</p> 	 <p>Andrew Lee</p> 	 <p>Jerhone</p> 	 <p>achimkoh</p> 	 <p>Jim</p> 
 <p>garym140</p> 	 <p>Gene Kogan</p> 	 <p>Hayley Hwang</p> 	 <p>Lisa Jamhoury</p> 	 <p>Alejandro Matamala Ortiz</p> 	 <p>Maya Man</p> 	 <p>Mimi Onuoha</p> 	 <p>Junya Ishihara</p> 	 <p>Naoto HIÉDA</p> 	 <p>aarón montoya-moraga</p> 	 <p>b2renger</p> 	 <p>Aditya Sharma</p> 	 <p>okuna291</p> 	 <p>Jenna</p> 
 <p>Yuuno, Hibiki</p> 	 <p>Dan Oved</p> 	 <p>Stephanie Koltun</p> 	 <p>YG Zhang</p> 	 <p>Wenqi Li</p> 	 <p>Brent Bailey</p> 	 <p>Jonarod</p> 	 <p>nicolefilloyd</p> 						

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# MODELS

CVAE

CharRNN

DCGAN

FeatureExtractor

ImageClassifier

KNNClassifier

Pitch Detection

Pix2Pix

PoseNet

Sentiment

SketchRNN

SoundClassifier

StyleTransfer

UNET

Word2Vec

YOLO



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## MODELS – WHAT DO THEY DO?

CVAE

CharRNN

DCGAN

FeatureExtractor

ImageClassifier

KNNClassifier

Pitch Detection

Pix2Pix

PoseNet

Sentiment

SketchRNN

SoundClassifier

StyleTransfer

UNET

Word2Vec

YOLO

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## MODELS – WHAT MEDIUMS DO THEY (GENERALLY) WORK WITH?

CVAE - images

CharRNN - text (characters)

DCGAN - images

FeatureExtractor - images

ImageClassifier - images

KNNClassifier - data

Pitch Detection - audio

Pix2Pix - images

PoseNet - images/video

Sentiment - text

SketchRNN - images/drawings

SoundClassifier - audio

StyleTransfer - images

UNET - images/video

Word2Vec - text

YOLO - images

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## MODELS – GENERATIVE OR CLASSIFICATION?\*

CVAE - generative

CharRNN - generative

DCGAN - generative

FeatureExtractor - classification

ImageClassifier - classification

KNNClassifier - classification

Pitch Detection - classification

Pix2Pix (callback) - generative

PoseNet - classification

Sentiment - classification

SketchRNN - generative

SoundClassifier - classification

StyleTransfer - generative

UNET - classification

Word2Vec - both

YOLO - classification



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# MODELS WE'LL LOOK AT

## Hello World!:

ImageClassifier

ImageClassifier Video

## More classifiers:

Sentiment

PoseNet

PoseNet Video

Pitch Detection

UNET

Sound Classifier

## Generative Models:

CharRNN Interactive

SketchRNN Interactive

StyleTransfer Video

CVAE

## Thinking about training:

FeatureExtractor

[training LSTM and StyleTransfer]

[github.com/handav/friendly\\_ml5](https://github.com/handav/friendly_ml5)